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Volume 1
Number 1
2015

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ABBREVIATED PRESCRIBING INFORMATION:

Cetraben® Ointment Presentation: An opaque white ointment. **Main ingredients:** White soft paraffin 35.0% w/w, Light liquid paraffin 45.0% w/w. **Indications:** An emollient used to moisturize and soften dry skin in eczema, dry cases of psoriasis and other dry skin conditions. Also used as a skin cleanser or bath additive. **Dosage and Administration: Adults, the elderly and children:** As an emollient: Apply to the affected areas as often as required. As a bath additive: Melt about 4g in hot water in a suitable container then add to the bath. As a soap substitute: Take a small amount of the ointment and lather it under warm water and use as required when washing or in the shower. Pat skin dry. **Contraindications:** Hypersensitivity to any of the ingredients. **Precautions:** For external use only. May cause local skin reactions. Avoid contact with eyes. Baths and showers may become slippery when used. If this product comes into contact with dressings and clothes, it can be more easily ignited with a naked flame. Keep away from fire when using this product. Do not use if you are allergic to any of the ingredients listed. Talk to your doctor before use if the skin is badly cracked, infected or bleeding. **Pregnancy and breastfeeding:** Unlikely to have any ill effect when used as directed. **Side effects:** None known. **Pack size:** 125g & 450g. **Trade Price: 125g:** £3.49 **450g:** £5.39. **Medical Device:** Class I. **Manufacturer:** Thornton & Ross Limited, Huddersfield, HD7 5QH, UK. **Date of preparation:** 07.11.2014

Cetraben® Emollient Bath Additive Light Liquid Paraffin Please refer to Summary of Product Characteristics before prescribing. **Presentations:** Bath additive – Clear liquid containing light liquid paraffin 82.8% w/w. **Indications:** Symptomatic relief of red, inflamed, damaged, dry or chapped skin, especially when associated with endogenous or exogenous eczema. **Dosage:** Bath additive –Adults: Add one or two capfuls; Children: add half/one capful to a warm water bath or apply with a wet sponge to wet skin before showering. **Contra-indications:** Hypersensitivity to any of the ingredients. **Special Warnings and Precautions:** Care should be taken if allergy to any of the ingredients is suspected. Care should also be exercised when entering or leaving the bath. Avoid contact with the eyes. **Side Effects:** (Refer to the SmPC for full list) Very rarely, mild allergic skin reactions including rash and erythema have been observed, in which case the product should be discontinued. **Marketing Authorisation Numbers:**. Cetraben Emollient Bath Additive: PL 06831/0260 **Basic NHS Price:** Bath Additive - 500ml plastic bottle £5.75. **Legal Category:** GSL. **Date of Preparation:** September 2014. **Further Information is available from:** Genus Pharmaceuticals Ltd, Linthwaite, Huddersfield, HD7 5QH, UK. Cetraben® is a registered trademark. CETBA.API.V10

Cetraben® Cream Presentation: A thick white cream. **Main ingredients:** White soft paraffin 13.2% w/w, Light liquid paraffin 10.5% w/w. **Indications:** An emollient, moisturising andprotective cream for the symptomatic relief of red, inflamed, dry or chapped skin, especially when associated with eczema. **Dosage and Administration: Adults, the elderly and children:** Apply to dry skin areas as often as required and rub in. **Contraindications:** Hypersensitivity to any of the ingredients. **Precautions:** For external use only. May cause local skin reactions. Avoid contact with eyes. Talk to your doctor before use if the skin is badly cracked, infected or bleeding. Do not use if allergic to any of the ingredients. **Pregnancy and breastfeeding:** Using Cetraben Lotion during pregnancy and breastfeeding is unlikely to have any ill effects. If unsure, talk to your doctor or pharmacist. **Side effects:** Mild allergic skin reactions. **Pack size:** 50g, 150g, 500g, 1050g Rx packs, 50ml & 200ml OTC packs. **Trade Price: 50g:** £1.40 **150g:** £3.98 500g: £5.99 **1050g**: £11.62 **50ml OTC:** £3.00 **200ml OTC:** £4.80 **Medical Device:** Class I. **Legal Manufacturer:** Thornton & Ross Limited, Huddersfield, HD7 5QH, UK. **Date of preparation:** 14.08.2014.

Cetraben® Lotion Presentation: A smooth white lotion. **Main ingredients:** White soft paraffin 5.0% w/w, Light liquid paraffin 4.0% w/w. **Indications:** For the relief of the symptoms of eczema, dermatitis and other dry skin conditions. **Dosage and Administration: Adults, the elderly and children:** Apply to the skin and gently rub in until absorbed. Use as often as required, or as directed by your doctor or pharmacist. **Contraindications:** Hypersensitivity to any of the ingredients. **Precautions:** For external use only. Do not swallow. Avoid contact with eyes. May cause local skin reactions. Talk to your doctor before use if the skin is badly cracked, infected or bleeding. Do not use if allergic to any of the ingredients. **Pregnancy and breastfeeding:** Using Cetraben Lotion during pregnancy and breastfeeding is unlikely to have any ill effects. If unsure, talk to your doctor or pharmacist. **Side effects:** Mild allergic skin reactions. **Pack size:** 200ml & 500ml Rx packs, 50ml & 200ml OTC packs. **Trade Price: 200ml:** £4.00 **500ml:** £5.64. **50ml OTC:** £3.00 **200ml OTC:** £4.80 **Medical Device:** Class I. **Legal Manufacturer:** Thornton & Ross Limited, Huddersfield, HD7 5QH, UK. **Date of preparation:** 14.08.2014.

Date of preparation: November 2014. *Cetraben Ointment preference test August 2014.

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Genus Pharmaceuticals on 01484 842217.

T R
Thornton & Ross
DERMATOLOGY

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Let's raise the profile of a vital area of patient care

Caring for patients with skin conditions can be both challenging and rewarding, but often in the rush to deal with what are sometimes seen as more 'deserving' conditions, such as heart disease, diabetes, or cancer, skin care falls through the cracks, even though the skin itself is the largest and one of the most complex organs we have. The impact of dermatological disorders is more than skin deep, as whether they are minor or more serious, the fact that they affect a person's appearance means that they not only have physical, but also psychosocial consequences.

Skin care and skin protection is a vital aspect of nursing care, and healthcare professionals should be competent and able to effectively assess and treat patients.

This new journal aims to reach all those caring for patients with skin conditions and to inform clinical practice. The first issue covers the bases with features that explore the different emollient therapies available and how to perform comprehensive skin assessment. Such assessment underpins the clinical articles on incontinence-related skin damage, issues around 'wet, leaky legs', common skin infections and infestations, venous eczema, childhood eczema and psoriasis — all of which can affect patient self-esteem and quality of life. The practical posters offer further education, as the importance of providing optimum skin care and promoting skin health cannot be over-emphasised.

It is hoped that through the features, clinical articles and posters, *Skin Care Today* will help raise the profile of dermatological nursing, an often under-recognised area of care despite being so vital to patient wellbeing. And, it is very readable for those looking for support...

Sandra Lawton, OBE, nurse consultant dermatology,
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April, 2015

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In each issue of *Skin Care Today* we investigate a hot topic currently affecting our readers. In this issue...

Is there a sense of complacency around skin care?

Considering that the skin is often cited as the largest organ in the body and has many clever ways of keeping us safe — from fighting off infection to keeping all our other organs in roughly the right place — it's amazing that skin care is still not always treated as a healthcare priority.

It is eight years since the Department of Health (DH) recognised dermatology as one of six specialties it wanted to work with 'to define clinically safe pathways that provide the right care in the right setting', to fulfil the requirements of the White Paper, *Our health, our care, our say: — a new direction for community services* (DH, 2006). The themes of avoiding unnecessary hospital admissions (and associated costs), promoting patient-centred care and wellbeing were developed further with *Delivering care closer to home* (DH, 2008) and the *NHS Next Stage Review* (DH, 2008).

However, despite this emphasis on ensuring that patients with long-term conditions receive the support that they need to remain independent at home, and skin care being an indicator that spans all five domains of the *NHS Outcomes Framework* (DH, 2013), the notion that management of skin conditions is a 'Cinderella specialty', that access to dermatology expertise is subject to postcode lottery, and that dermatological conditions don't kill, are still concepts being bandied around.

It could be said that there is a sense of complacency around managing skin conditions. This is hard to balance against very real statistics — 54% of the UK population report a skin condition

I have been a dermatology nurse for 31 years, the last 10 working in the community, and I still struggle to comprehend the attitude of some GPs towards long-term skin complaints. Promoting patient-centred care and wellbeing is supposed to be at the top of the agenda for clinicians to prevent hospital admissions and associated costs, however, dermatology still seems to come low on the list of priorities. Part of my role is education around managing long-term skin complaints, not only for parents and carers, but also for clinicians, and I have found that there is a definite lack of understanding from a large number of GPs as to the distress that some of these conditions can cause.

One of my aims for the future is to educate clinicians on the importance of prescribing adequate amounts of emollients to manage the condition effectively… do GPs not realise that 125g of an emollient will not suffice for a month?

Education around the amount and potency of topical steroids is also an issue for many clinicians in their ability to manage conditions such as atopic eczema, with 'steroid phobia' being a real issue. When the patient presents their prescription to the pharmacist for their limited amount of topical steroid after being told to apply it sparingly, they are then advised again on how to apply this treatment very sparingly, until the poor patient is frightened to use any at all.

Let's all make a big push forward in the education of dermatology, not only to clinicians who manage these patients, but also to the patients who suffer from these conditions and allow them to have a stronger voice when visiting their GPs.

Tina Diaz, dermatology clinical nurse specialist, CAS Services, City of Coventry Heatlh Centre

in any 12-month period; 14% seek medical advice from GPs or community practitioners; and skin conditions (most notably infection and eczema) are the most frequent reason for GP visits (Schofield et al, 2010).

And if that weren't enough, skin disease does kill — in 2005, nearly 4,000 deaths were the result of skin disease, with 1,817 being due to malignant melanoma, the most common cancer in the UK. On a more day-to-day level, the sheer volume of skin care products available over-the-counter, both cosmetic and medical, points to the demand for attention.

Putting statistics aside, the impact, both physical and psychological of skin conditions, surely justifies a call for adequate provision within primary care. Regardless of the severity, the huge effect that skin conditions can have on patient wellbeing and self-esteem should not be overlooked — no one can dispute the negative comments that children with eczema or psoriasis often have to put up with at school; the anxiety that teenagers battling with acne experience; or the impact on work and personal relationships of any disease that affects a person's appearance.

The long-term, even lifelong, nature of some conditions, means that all members of the multidisciplinary team need to be educated and competent in identifying and treating minor skin disorders, with clear pathways of care in place detailing when to refer for specialist intervention, and for specialists to be available — unfortunately, this is often not the case, with the UK having a 'chronic shortage of consultant dermatologists' (All Party Parliamentary Group on Skin [APPGS], 2015).

Given the facts and figures and extent of the morbidity and mortality caused by skin disease, it is hard to understand why there is a lack of adequate training in primary care around dermatological conditions for GPs, nurses and, indeed, pharmacists (APPGS, 2012). Furthermore, since October 2013, the DH has had no policy lead for dermatology — with clinical commissioning groups (CCGs) commissioning their own local skin care services.

While this might result in more 'personalisation' of treatment — from the local CCG rather than Whitehall level — it goes nowhere towards establishing the 'standardised ways of how care is provided', which Simon Stevens is calling for (*Health Service Journal* annual lecture: 'Simon Stevens' on forward view for the NHS', 22 December 2014). There seems to be confusion too as to how dermatology services are funded, as while some are down to local CCGs,

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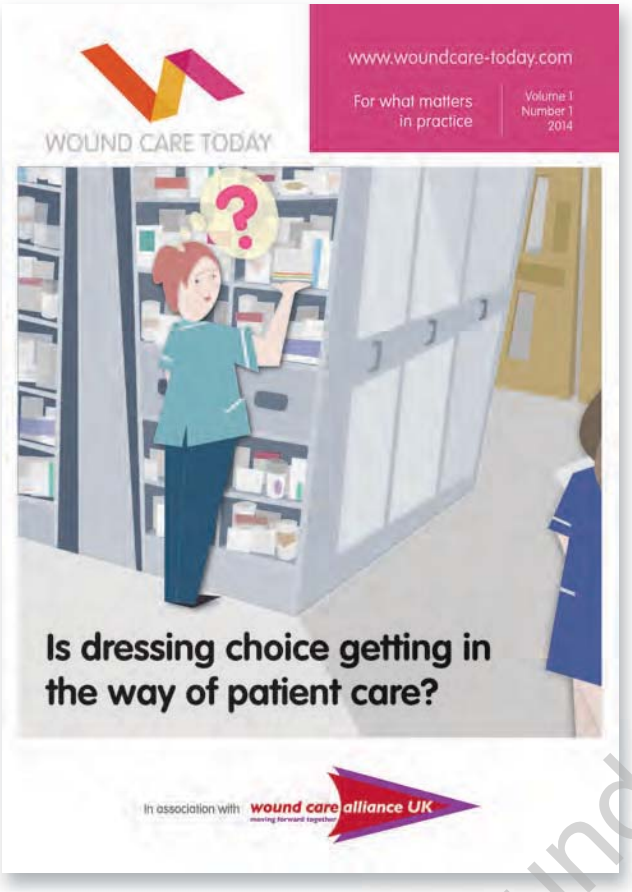

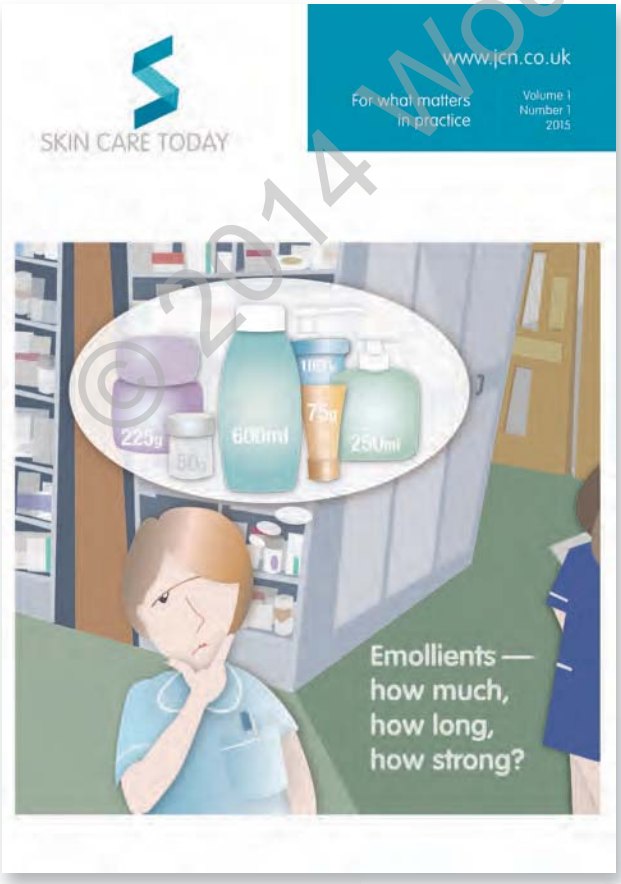

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- › Debate and discussion — on what matters most to provide patient-centred care

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others (highly specialised) are commissioned nationally by NHS England.

There is no doubt that there is good work going on out there. The National Institute for Health Research (NIHR) funds research, e.g. £2 million to Salford Royal NHS Foundation Trust for the IMPACT [Identification and Management of Psoriasis Associated ComorbidiTy] research programme; there are new National Institute for Health and Care Excellence (NICE, 2013) guidelines, such as that on atopic eczema in children (see *pp. 58–65*); teledermatology is emerging in some remote regions; and information continues to be provided by dermatology patient support groups.

While such work is invaluable and to be welcomed, commitment and education are needed from government, so that healthcare professionals are not only able to treat, but also manage and advise patients on how to self-care and cope with skin conditions that may last a lifetime.

The extent and debilitating nature of conditions like eczema and psoriasis need to be understood, with the necessary resources and funding being put in place to provide dermatological care closer to home, with nurse-led services that meet patient needs.

At the moment, there is a danger that unless a local commissioner or a member of his/her family has a skin condition, provision for what is a largely unrecognised area of medicine might slip off the radar. The skin may be the largest organ of the body, but dermatology is still receiving too little attention... **SCT**

Over the past few years, the All Party Parliamentary Group on Skin (APPGS) has produced numerous reports looking at the needs of patients in various dermatological settings nationally. The areas investigated include the training of GPs and other healthcare professionals in managing patients with skin conditions, interventions for patients with skin cancer and the use of sunbeds, to name three.

Each report makes recommendations to improve the given situation. For me, the difficulty appears to be how to inspire generalists to recognise the areas that specialists see as important in terms of skin-related issues. How do specialists help generalists without making them feel like they need to be specialists? Maybe, as dermatology practitioners, my colleagues and myself need to think about how better to inform and support other clinicians in what they need to know. Instead of simply imparting information, which is tempting, is there a place for asking first which areas of skin-related care do they feel they would like improving? Maybe if learners identify gaps in their knowledge, there will be a better sustained interest in learning more about other skin care issues?

Only then will there be a turnaround in the way that the fundamental need for maintaining skin integrity — in whatever setting — is seen and dealt with.

Sara Burr, community dermatology nurse specialist, Community Nursing and Therapy, Norfolk Community Health and Care NHS Trust

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Choosing soap substitutes, bath additives and leave-on emollients can seem complicated...

With so much choice, there can be uncertainty around which preparation to use. Choosing one type of bath additive or emollient over another can create confusion for healthcare professionals and patients.

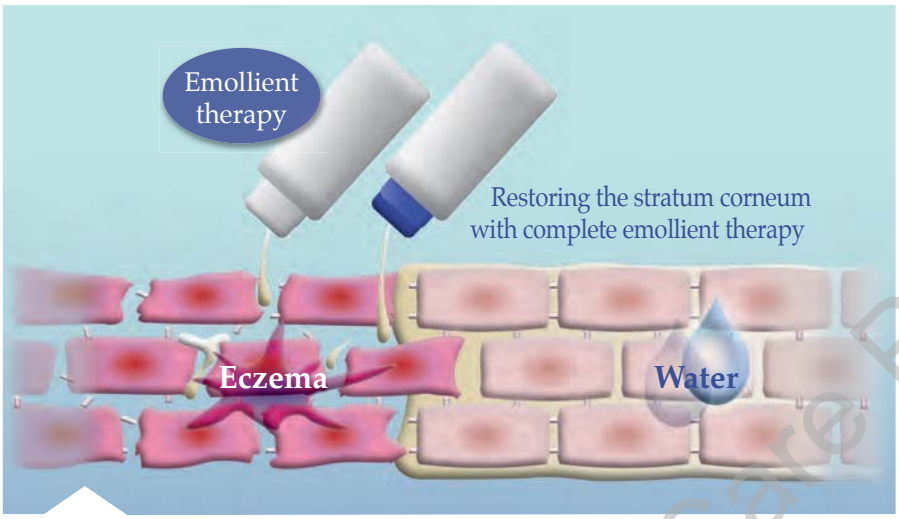

Figure 1. *Effect of emollient therapy on dysfunctional skin.*

WHY IS COMPLETE EMOLLIENT THERAPY BENEFICIAL?

Emollients aim to prevent trans-epidermal water loss by creating an occlusive layer on the surface of the skin, which increases water in the stratum corneum. This, in turn, helps to restore the skin's barrier function — keeping allergens and irritants out and moisture in (Cork, 1997; Cork and Danby, 2009; *Figure 1*).

Emollient formulations vary, as do the way in which they work. For example, they may:

- Have an occlusive effect, trapping water within the stratum corneum
- Have a humectant effect, attracting water into the epidermis from the dermis (Penzer and Ersser, 2010).

And, some products do both — providing occlusive and humectant effects.

Tanya Flavell, lead clinical nurse specialist in dermatology, community tier 2 dermatology service, Bolton NHS Foundation Trust

Dry skin is a problem for many, particularly those who have endogenous skin conditions such as eczema, psoriasis and ichthyosis. The natural ageing process alongside the use of detergents can also lead to dry skin. Environmental factors, stress, ill health and some medications may also affect the hydration levels of the skin.

ASSESSMENT

It is important to consider the condition of the skin, whether it is wet or weeping, dry, flaky or scaly, fissured with deep cracks if very dry, infected, blistered, eczematous, psoriatic, or vulnerable. The site that needs treating or protecting should also be assessed, as a combination of preparations may be appropriate for different body sites, e.g. the scalp, face, body, limbs, hands, palms, feet, soles, flexures and sensitive areas. Furthermore, the ability of the patient or carer to apply the treatment should be taken into account.

Dry skin can also look different depending on the skin type, e.g. grey or ashy in people with darkly-pigmented skin.

The impact of dry, vulnerable skin management and itch on patients' and/or their family's quality of life may need to be addressed.

PATIENT CHOICE

Patients should have a choice of emollients, as personal preference of emollient preparations vary significantly. Some patients prefer heavier, greasy emollients for night time and lighter emollients for day time use, while others prefer an enhanced humectant and occlusive product that may only need to be applied two to three times daily.

Cosmetic acceptability of products is very important for patients (Best Practice Statement, 2009), and supports concordance with the agreed management plan (British Dermatological Nursing Group [BDNG], 2012).

MANAGING DRY SKIN

Emollient therapy is essential for the treatment of all dry and vulnerable skin conditions (BDNG, 2012; Moncrieff, 2013). Complete emollient therapy refers to the use of bath additives, soap-free cleansers, or soap substitutes and leave-on emollients. There are a number of

Top tip:

The stratum corneum is the protective top layer of the epidermis and needs to be well-hydrated and protected to prevent dry and vulnerable skin developing.

For patients who want the convenience of self-selection, handy sized packs are **available for purchase in pharmacies**

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Diprobase Prescribing Information

Uses: Diprobase Cream and Ointment are emollients, with moisturising and protective properties, indicated for follow-up treatment with topical steroids or in spacing such treatments. They may also be used as diluents for topical steroids. Diprobase products are recommended for the symptomatic relief of red, inflamed, damaged, dry or chapped skin, the protection of raw skin areas and as a pre-bathing emollient for dry/eczematous skin to alleviate drying effects. **Dosage:** The cream or ointment should be thinly applied to cover the affected area completely, massaging gently and thoroughly into the skin. Frequency of application should be established by the physician. Generally, Diprobase Cream and Ointment can be used as often as required. **Contra-indications:** Hypersensitivity to any of the ingredients. **Side-effects:** Skin reactions including pruritus, rash, erythema, skin exfoliation, burning sensation, hypersensitivity, pain, dry skin and bullous dermatitis have been reported with product use. **Package Quantities:** Cream: 50g tubes, 500g pump dispensers; Ointment: 50g tubes, 500g tubs. **Basic NHS Costs:** Cream: 50g tube = £1.28, 500g pump = £6.32; Ointment: 50g tube = £1.28, 500g tub = £5.99. **Legal Category:** GSL. **Marketing Authorisation Numbers:** Cream: PL 00010/0658; Ointment: PL 00010/0659. **Marketing Authorisation Holder:** Bayer plc, Consumer Care Division, Bayer House, Strawberry Hill, Newbury, Berkshire, RG14 1JA, U.K. **Date of Revision of Text:** December 2014

Essential Information: Diprobase Lotion

MSD Consumer Care, Inc.3030 Jackson Avenue, Memphis, TN 38112, USA.

EC REP N.V. Organon, Molenstraat 110, 5342 CC, Oss, The Netherlands.

Active Ingredients: None. **Legal Category:** Medical device. **Uses:** Diprobase Lotion is an emollient with moisturising and protective properties, recommended for the management of eczema and other dry skin conditions. Relieves and soothes dry or eczematous skin. **Side-effects:** No skin reactions have been reported with product use. **Contra-indications:** Hypersensitivity to any of the ingredients. **Dosage:** Apply to affected area as often as required. **Package Quantities:** 300ml pump pack, 50ml tubes. **NHS Price:** 300ml £3.49, 50ml £1.28. **Recommended Retail Price:** 300ml £7.99, 50ml £3.99. **Date of preparation:** December 2014. For further information contact Bayer plc, Consumer Care Division, Bayer House, Strawberry Hill, Newbury, Berkshire, RG14 1JA, U.K.

Please refer to the full SPC text before prescribing this product. Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Bayer plc, Consumer Care Division.

Date of preparation: March 2015
Code: MWB-1862439607

The aim...

... of complete emollient therapy is to:

- Maintain and restore the skin's barrier function
- Hydrate the stratum corneum
- Enable treatments to penetrate more effectively
- Alleviate itch, tightness, dryness, irritation and roughness of the skin (BDNG, 2012)
- Provide a soothing and therapeutic effect
- Prevent recurrence of dry skin, maintain hydrated skin, and be an effective barrier in the long term
- Improve quality of life

preparations available, as listed below.

Bath additives

Historically, bath additives have been used with good clinical effect and should be included in the care plan for patients with dry skin conditions (BDNG, 2012; Moncrieff, 2013). However, there is minimal published evidence to show the effectiveness of bath emollients and soap substitutes (Drug and Therapeutics Bulletin, 2007), and further research needs to be done to show how effective they are when used regularly.

Some examples of currently used bath additives are: Oilatum® fragrance free (Stiefel); Hydromol® bath and shower additive (Alliance Pharmaceuticals); QV™ bath (Crawford Healthcare), Cetraben®, Balneum (soya); Balneum® plus (anti-itch – with lauromacrogols) (Almirall); Zeroderm® (Thornton and Ross); Diprobath® (MSD); Doublebase™ Bath (Dermal); Aveeno® bath and shower oil; and Epaderm® ointment (Mölnlycke Healthcare).

Bath additives are diluted into the bath water or bowl in line with the quantities stated by the manufacturer, and some formulations can be applied directly onto wet skin.

Soap substitutes or soap-free cleansers

These replace the use of detergents, shower gels, bubble baths and soaps. Water alone can be an irritant and may cause dryness (Tsai and Maibach, 1999; Galzote et al, 2007). Therefore, soap substitutes are widely recommended (Cork and Danby, 2011; BDNG, 2012; Moncrieff, 2013).

Examples of currently used products are: Oilatum shower gel; QV wash; Doublebase shower gel; Doublebase wash gel; Hydromol ointment, Epaderm ointment and Epaderm cream, and ZeroAQS (sodium lauryl sulphate-free skin cleanser) (Thornton and Ross).

They are usually applied on the skin before washing, or to wet skin, as per manufacturers' indications.

Antimicrobial bath additives and soap substitutes

These are used for infected skin, recurrently infected skin and skin that is at risk of infection.

Some examples include: Dermol™ shower and wash (Dermal); Oilatum plus bath additive.

They may contain chlorhexidine, triclosan and benzalkonium chloride.

Ointments

These are greasy preparations with high lipid contents and are very occlusive. They may have a longer-lasting hydrating effect than some of the creams. Hydromol ointment, Epaderm ointment and 50/50 white soft paraffin/liquid paraffin (WSP/LP), Cetraben® ointment are examples.

Gels

These replace lost water within the skin and have occlusive effects, forming a waterproof barrier over the skin's surface. This prevents water within the skin from evaporating and keeps the underlying skin hydrated. For example, Doublebase gel and Doublebase Dayleve gel have humectant effects.

Creams

These are a mix of lipid and water. They may be absorbed more quickly and be cosmetically more acceptable. They may need to be applied regularly, up to four times daily, perhaps more if the skin remains dry. Simple creams have a shorter hydrating action than ointments and enhanced emollients, e.g. E45 cream, Diprobase cream (Bayer), and Epaderm cream.

Some formulations, such as QV, Cetraben, Oilatum cream, have an added humectant — glycerol, which acts as a natural moisturising factor and prolongs hydration levels.

Lotions

Lotions have a higher water content than creams, and a shorter duration of effect. They may need to be applied more frequently, and are good for use on hairy areas of skin and skin folds, for example, Aveeno, Cetraben lotion and Diprobase lotion (Bayer).

Sprays

Sprays contain mostly paraffin, white soft paraffin and liquid paraffin. They are useful as a quick fix in between applications of heavier emollient preparations.

Sprays need to be applied frequently, i.e. 2–3-hourly, or as needed. Emollin (CD Medical) and Dermamist (Alliance Pharmaceuticals) are spray formulations.

Enhanced emollients

Some emollients have added humectants or/and occlusive properties, such as glycerol, urea, ceramide, and povidone (for example, Oilatum cream, Doublebase Dayleve gel and Epaderm cream). Enhanced emollients have added natural moisturising factors and longer occlusive effects.

Leave-on emollients...

... come in different formulations. They should be applied regularly — especially after washing, throughout the day and before bed — in downward sweeping strokes in the direction of hair growth. It is advisable to show patients how they should be applied (Moncrieff, 2013).

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MÖLNLYCKE HEALTH CARE

Urea is a good humectant and may have some antipruritic properties (Pan et al, 2013). It comes in different concentrations (5–25%) and can be found in preparations such as Balneum cream, Eucerin® cream and lotion, Hydromol intensive, Flexitol® hand and foot balm (LaCorium Health) and Calmurid cream (Galderma).

Higher strength urea preparations are usually used on thicker areas of skin, such as the palms and soles, or in icthyotic conditions.

Enhanced emollients are effective on very dry skin and can also help to reduce scale (Moncrieff, 2013). Humectant-based emollient preparations may be more acceptable, as they have a longer-lasting hydrating effect on dry skin and are less greasy than ointments.

Antipruritic emollients

These contain lauromacrogols and are sometimes combined with urea. They can be therapeutic in helping to relieve the itch associated with dry skin, senile pruritus and some eczematous conditions. In the author's clinical experience, Balneum plus cream and E45 itch relief are commonly used preparations, particularly in the ageing population.

Prescribing activity

Local emollient formularies have a selection of preparations for nurses to prescribe. The prescribing and repeat prescribing of adequate quantities is essential to support patient care.

Red Flag **Side-effects**

Transient stinging may occur with some preparations. If persistent, the product should be changed. Some emollients have preservatives that may cause irritancy or allergy — contact dermatitis (Penzer and Ersser, 2010). Sometimes it takes a trial of emollients to find the one that best suits the needs of the patient's skin and which is cosmetically acceptable. Some occlusive greasy emollients can cause folliculitis, especially if applied incorrectly (BDNG, 2012).

RISK ASSESSMENTS/HEALTH AND SAFETY AROUND EMOLLIENT USE

Patients and carers should be fully informed about the risks of slippage with greasy products, and that paraffin-based preparations are highly flammable. Risk assessments should always be undertaken. Therapeutic garments and bandages may also be an additional risk to consider, alongside smoking and oxygen therapy (National Patient Safety Agency [NPSA], 2007).

Pot hygiene

Patients should be educated on clean pot technique. It is good practice to decant cream and ointment from open-lid pots into a small bowl using a clean spoon. Advise against putting fingers directly into pots to prevent contamination and infection.

What not to use on the skin?

Treatment of dry skin with olive oil may significantly damage the skin barrier and should be discouraged (Danby et al, 2013). Aqueous cream containing sodium lauryl sulphate weakens the barrier function of the skin, increasing transepidermal water loss (Cork and Danby, 2011; Moncrieff et al, 2013). A warning has been issued about aqueous cream, stating that it may cause skin irritation in patients with eczema (Medicines and Healthcare Products Regulatory Agency [MHRA], 2013).

CONCLUSION

Nurses are ideally placed to carry out skin assessment, provide education and work with patients to identify an effective emollient package. This should be available for patients of all ages with vulnerable, dry or scaly skin conditions. Patient education and written management plans are essential for the successful management of dry skin conditions. SCT

Top tip:

Greasy and enhanced emollient products are good on dry, scaly conditions. Creams are helpful in drying-up wet, weepy conditions, where ointments may slide off or cause occlusive effects, trapping any underlying

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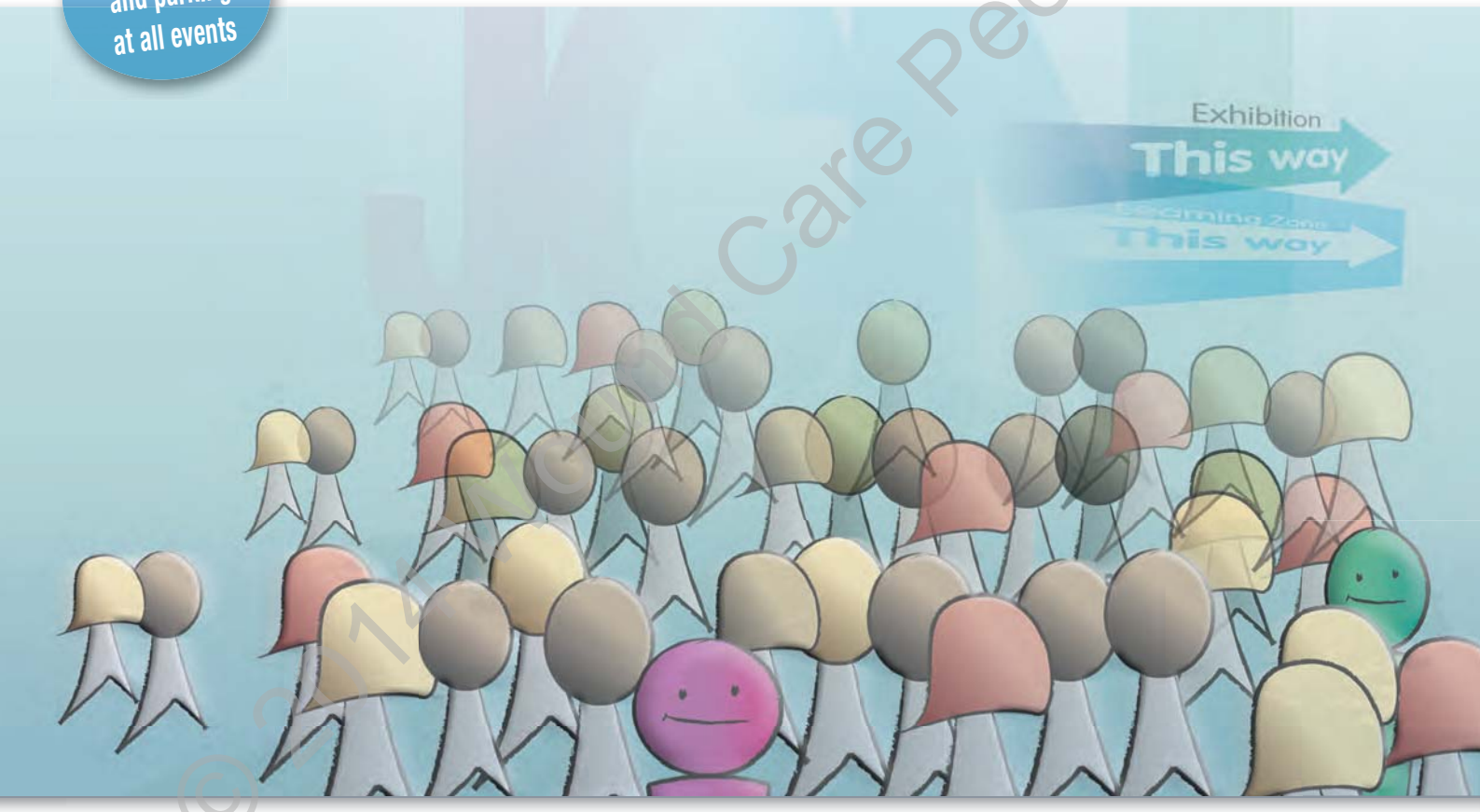

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event	venue	date
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Skin assessment can be overlooked ...

Although the skin is a visual organ, it can be overlooked. However, it is vital that nurses are competent to take a comprehensive dermatological history and examination within their clinical role. Here, Sandra Lawton looks at what should be covered when performing holistic skin care assessment.

DERMATOLOGICAL HISTORY

Assessment of the dermatology patient should include basic demographics: age, race, sex, occupation, hobbies and a detailed history of (Fitzpatrick et al, 2001):

- Constitutional symptoms associated with acute and chronic illnesses: headaches, fever, weakness, fatigue, malaise, loss of appetite, weight loss
- Past medical history: operations, illnesses, allergies, medications (past and present), atopic history (eczema, asthma, hay fever)
- Family history of skin disease, atopic conditions, autoimmune conditions
- Social history: smoking, alcohol and drug abuse, sexual behaviour and travel
- The lesion or rash: when it appeared (onset) and where. Has it spread or changed in appearance? Does it fluctuate, or has it been persistent? Is the rash itchy, sore, or painful?
- Triggers: heat, cold, sun, exercise, travel history, medications, pregnancy, time of year
- Treatments: current and previous treatments used, both prescribed and those purchased over the counter, internet and borrowed from friends and relatives. Have they helped?
- Other interventions tried: sunbeds, homeopathy, dietary interventions, herbal remedies.

Sandra Lawton, OBE, nurse consultant dermatology, Queen's Nurse, Nottingham University Hospitals NHS Trust

PSYCHOLOGICAL/PSYCHO-SOCIAL HISTORY

The impact of skin conditions on quality of life has been shown to be greater for some chronic skin conditions, such as psoriasis, than for life-threatening and non-dermatological conditions, such as cancer. Many common skin diseases are associated with significant psychosocial morbidity, which may go unrecognised without the use of appropriate assessment tools (see 'Resources') (Schofield et al, 2009).

Skin disease is frequently associated with psychological problems. Stress, in itself, often aggravates skin conditions. It is crucial to understand how patients perceive the severity of their skin condition, as for some they may be covered and never seek help, while others may appear to have limited diseases and be devastated. Psychological effects may stop patients from going out, working, and forming relationships. They can lead to depression and occasionally even suicide. Psychological problems may also cause skin disease, e.g. dermatitis artefactae, delusions of parasitosis (Primary Care Dermatology Society [PCDS], 2014a).

PHYSICAL ASSESSMENT

Examination of the skin should be performed in a warm, well-lit room with natural light. It is considered best practice to examine the whole skin (but giving clear explanation to the patient as to why other areas of the skin are being exposed). A comprehensive history will signpost and provide clues for the examination.

The examination should be systematic, working from the top down, including the hair, nails, skin creases and folds. During this examination, also note any unusual odours or smells, which could take you down several paths, i.e:

- Infection
- Continence issues
- Poor care.

It is critical that skin lesions are palpated, this will give you clinical information about skin texture and temperature and can also break down the physical barrier, which many dermatology patients experience. Bear in mind that most people are unused to exposing their body to 'strangers' and be aware of

✔ Skin care facts...

- ✔ People with skin conditions can receive the same reaction from society as anyone who looks 'different'. They can be subjected to stares, whispered comments, antagonism, insults, or excluded from normal social activities (Lawton, 2005).
- ✔ Skin conditions are the most frequent reason for consulting GPs, with 24% of the population seeking advice.
- ✔ It is estimated that around 23–33% of patients have a skin problem that can benefit from medical care at any one time.
- ✔ Surveys suggest that around 54% of the UK population experience a skin condition in a given twelve-month period.
- ✔ Most patients (69%) self-care, with around 14% seeking further medical advice, usually from the doctor or nurse in the community (Schofield et al, 2009).

factors such as religion, culture and upbringing before beginning the physical examination (Lawton, 2005).

Lesions should be measured accurately and described and documented on a body plan. This description should include the distribution, type, size, shape and colour of the lesions. The surface characteristics and texture (superficial or deep) should also be recorded, considering character, shape and distribution (Fitzpatrick et al, 2001; Lawton, 2005).

Character:

- Is there redness (erythema), scaling, crusting, exudate?
- Are there excoriations, blisters, erosions, pustules, papules?
- Are the lesions all the same (monomorphic), e.g. drug rash, or variable (polymorphic), e.g. chickenpox?

Shape:

- Are the lesions small, large, annular (ring-shaped), linear, serpiginous (snakelike) umbilicated?
- Arrangement of multiple lesions: grouped or disseminated, scattered, discrete lesions or diffuse?

Distribution:

- Extent: isolated single lesion, localised, regional, generalised
- Is it acral (hands, feet), extremities of ears and nose, in light exposed areas or mainly confined to the trunk?

Lesions are classified as primary (*Box 1*), which present at the initial onset of the disease, and secondary (*Box 2*), which are the result of changes over time caused by disease progression, manipulation (scratching, rubbing, picking), or from treatments applied to the skin (Lawton, 2005).

Other factors to consider when performing a physical assessment of the skin is the range of skin colours and hair types, as lesions which in white skin appear red or brown, appear black or purple in pigmented skin, with mild redness (erythema) often being missed. Skin inflammation commonly leads to post inflammatory pigmentary changes — lighter (post-inflammatory hypo-pigmentation) and darker (post-inflammatory hyper-pigmentation), which can persist for a long time after the initial inflammation and is often of great concern to patients who think their skin is permanently scarred.

Box 1:

Primary lesions

Type	Description
Macule (e.g. Mongolian blue spot)	A flat mark, a circumscribed area of colour change, brown, red, white, blue or tan with smooth surface
Papule (e.g. scabies)	An elevated spot, palpable, firm, circumscribed lesion, generally less than 5mm in diameter. May be solitary or multiple and can be: • Acuminate (pointed), dome-shaped (rounded) • Filiform (thread-like), flat-topped, oval or round • Pedunculated (with a stalk) • Sessile (without a stalk) • Umbilicated (with a central depression) • Verrucous (warty)
Nodule (e.g. rheumatoid nodule)	Elevated, firm, circumscribed, palpable, large solid lesion greater than 5mm in diameter — can involve all layers of the skin
Plaque (e.g. psoriasis)	An elevated, flat-topped, firm, rough, superficial papule greater than 2cm in diameter, with well-defined or ill-defined borders
Wheal	An elevated, solid, transient, changing and irregular-shaped area of cutaneous oedema. Variable in diameter, pale pink or white
Vesicle	An elevated, circumscribed, superficial fluid-filled blister less than 5mm in diameter. They may be grouped
Bulla	A vesicle (blister) greater than 5mm in diameter
Pustule	A vesicle filled with pus

(Lawton, 2005; DermNetNZ, 2014a)

Box 2:

Secondary lesions

Type	Description
Scale (e.g. psoriasis)	Heaped-up keratinised cells, flaky exfoliation, irregular, thick or thin, dry or oily, variable size, silver, white or tan in colour
Crust (e.g. impetigo)	Dried serum, blood or purulent exudate, slightly elevated and variable in size
Excoriation (e.g. atopic eczema)	Loss of epidermis, linear area usually due to scratching
Lichenification (e.g. chronic eczema)	Rough, thickened epidermis; accentuated skin markings caused by rubbing or scratching
Maceration (skin surrounding leg ulcer)	Softened, soggy epidermis

(Lawton, 2005; PCDS, 2014a)

ADDITIONAL DIAGNOSTICS

As part of assessment and diagnosis, further tests may be required (PCDS, 2014a; DermNetNZ, 2014b). These may include:

- Diagnostic biopsies: histological examination for diagnosis and immunofluorescence (IMF), which looks at immune complexes in many of the blistering conditions
- Microbiological samples of scales, crusts, exudate and tissue (including hair and nails) for microscopy and culture, looking for yeasts, fungi, bacteria, viruses and parasites
- Blood sampling for diagnosing and monitoring drug therapies

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(clinical chemistry, haematology and immunology)
- Allergy testing including patch testing and skin prick testing
- Haematological screening: for some patients there may be a history of itching and little to see clinically. These patients require a haematological screen as pruritus may result from a systemic cause (metabolic and endocrine conditions, iron deficiency anaemia,malignancy, liver disease and drugs) (PCDS, 2014b).

FOLLOWING DIAGNOSIS

As highlighted earlier, skin disease can have a huge impact on patients, affecting their quality of life and concerns about appearance. Many experience stigma and isolation; with their condition often being trivialised. Nurses play a crucial role in assessing and educating patients, family and carers about their skin condition and how to manage it. By administering topical treatments and drugs they are able to maintain the integrity of the skin and comfort for the patient, reducing itching, soreness, dryness, bleeding and pain. As with any medication, treatments applied to the skin should be monitored and patients educated about their treatments — how to use them and what the potential side-effects could be.

Applying such treatments can be time-consuming, so nurses should provide realistic skin care routines which can be achieved. They can further support and monitor outcomes and signpost patients to appropriate support groups.

With the advent of social media and the internet, patients should be given appropriate and credible information to manage their condition. **SCT**

The skin...

... is the largest organ of the body and as a visible organ is not an inert covering. It has a range of functions, including defence against infections and infestations, protection against irritants, ultraviolet irradiation and injury. The skin is also vital for controlling water and heat loss, and is an important sensory organ which distinguishes pain, touch, itching, heat and cold. In addition, vitamin D is synthesised in the skin and it is also an organ of communication and sexual function (Schofield et al, 2009).

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RESOURCES

British Association of Dermatologists: http://www.bad.org/; www.bad.org.uk/for-the-public/patient-support-groups

British Dermatological Nursing Group (BDNG): http://www.bdng.org.uk

Practice point

The Royal College of Nursing (RCN) and British Dermatological Nursing Group (BDNG) (2005) define a nurse as competent if they are able to:

- Obtain consent from individuals before initiating assessment
- Undertake a holistic assessment of the patient to determine accurately actual and potential problems that might require attention
- Use an evidence-based and person-centred assessment approach to identify healthcare and education needs
- Adjust assessment and history-taking to the life span, gender and cultural background of the person
- Assess a patient's level of vulnerability because of disability or age
- Assess appropriate additional information about a patient and communicate that information appropriately
- Assess the ability and motivation of the patient and carer to self-manage
- Undertake a systematic skin assessment
- Assess pruritus and pain to provide symptom relief and reduction of symptoms
- Use the assessment data to implement and evaluate a plan of care.

Cardiff Dermatology Quality of Life Measures: http://www.dermatology.org.uk/quality/quality-life.html

Centre of Evidence-based Dermatology: http://www.nottingham.ac.uk/research/groups/cebd/index.aspx

Cochrane Skin Group:http://skin.cochrane.org

Patient Support Groups: http://www.patient.co.uk/support/skin-hair-1193

UK Dermatology Clinical Trials Network:http://www.ukdctn.org

SKIN CARE TODAY

Incontinence-associated dermatitis

Risk factors for incontinence

- Medical or surgical factors associated with dysfunction of lower urinary tract
- Medications may have an adverse effect on lower urinary tract resulting in incontinence and retention
  - Aging process
  - Impaired mobility
  - Child birth
  - Diabetes

Ensure correct diagnosis of skin damage

Note erythema (redness). This is the first sign that skin is at risk and is caused by contact with moisture, irritants or friction.

Moisture-associated dermatitis in skin folds

(intertriginous dermatitis — ITD)
Erosion and denudation as a result of exposure to chronic perspiration:

- Mild, mirror image erythema on each side of the skin fold
- Can develop in any skin fold
- May be present with incontinence-associated dermatitis (IAD)

Management

NO IAD
Intact skin with no redness

Use a continence care wipe after each episode of incontinence

MILD IAD
Slight erythema present, but no areas of broken skin

Use a continence care wipe after each episode of incontinence

MODERATE TO SEVERE IAD
Erythema present and pinprick pattern on skin evident

Use a continence care wipe after each episode of incontinence

Apply a barrier cream twice

Incontinence-associated dermatitis (IAD)

Erythema, inflammation and erosure of skin as a result of exposure to urine and faeces:

- Found in perineum, in the labial folds, groin, buttocks, or scrotum from exposure to urine
- Perianal and gluteal cleft from exposure to stool
- May include candidiasis

Assessment

- Carry out holistic nursing assessment, include questions regarding bladder and/or bowel function/habit
- Pay special attention to skin folds, or areas where soil and moisture may be trapped
- Utilise an incontinence assessment tool if appropriate
- Carry out urinalysis to exclude a urinary tract infection (UTI)
- Record findings from the assessment and indicate where further action is required
- Use Bristol stool scale to help assess episodes of faecal incontinence and rule out any faecal impaction/constipation
- Document all actions in patient notes

daily (AM and PM)

SEVERE IAD
Excoriated weeping skin, island lesions may be visible

Use a continence care wipe after each episode of incontinence

Barrier film every 24 hours

- Continence care wipes can be used following every episode of incontinence.
- Carry out timed skin checks and reassess continence status regularly, dependent on the patient's condition and clinical decision.
- Review continence management regularly. If episodes of urinary or faecal incontinence, seek advice of continence specialist.
- If secondary infection such as candidiasis (yeast), unusual skin changes, lesions or skin breakdown occur, which do not improve with routine skin care, consider medical referral.
- Ensure correct absorbency of pads used to avoid skin drying out. Only change pad if indicator three-quarters full, or if patient faecally incontinent.
- If skin is excoriated or broken, consider using a durable barrier cream or barrier film.
- Follow local guidelines and document all actions in the patient's care plan.

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References:
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IN BRIEF

- Causes of incontinence are many and in some cases multifactorial. Individuals may suffer either urinary or faecal incontinence, or both.
- In all cases the outcome is undignified, affecting quality of life and can lead to incontinence-related skin damage or incontinence-associated dermatitis (IAD), a painful skin condition.
- Individuals with bladder and/or bowel problems need sensitive assessment and appropriate interventions to relieve their discomfort and manage their incontinence.

KEY WORDS:

- Incontinence
- Assessment
- Skin damage
- Incontinence-associated dermatitis (IAD)
- Cleansing
- Emollient therapy
- Skin protection

Avoiding the deleterious effects of incontinence-related skin damage

Pauline Beldon

Although bladder and bowel problems are considered to occur predominantly in the older person, they can occur in all age groups. It is possible that the individual's problem may be a result of a progressive disease or illness affecting more than one system within the body. Consequently, it is vital that healthcare professionals undertake a thorough assessment of the person, including their medical and surgical history. Should they have a specific continence issue they will benefit from assessment from a continence specialist. This has been widely recognised by the National Institute for Health and Care Excellence (NICE; 2007, 2010, 2012, 2013, 2014) as being not only in the best interests of the individual, but also a measure that will ensure that the appropriate, cost-effective interventions are made.

POPULATION AFFECTED BY INCONTINENCE

It is estimated that approximately six million adults in the UK struggle to control their bladder function (Irwin et al, 2005), suffering with stress, dribbling incontinence or even voiding large amounts of urine. Prevalence is estimated to be 15% in healthy older adults and 65% of old frail adults (Landi et al, 2003). However, it is likely that this is an underestimation since many adults may prefer to manage their continence problems privately, rather than seek help. Buckley et al (2007) concluded that men were more likely to report a bladder-only problem, while women were more

> It should not be assumed that incontinence is a natural consequence of ageing. It can also often be cured or improved. Remember, a detailed assessment should always be undertaken.

INCONTINENCE-ASSOCIATED DERMATITIS (IAD)

Incontinence-associated dermatitis (IAD) is common among patients who are incontinent of faecal and/or urinary incontinence (Beeckman et al, 2011). If urine is allowed to overhydrate the skin, the moisture increases the skin's:

- Vulnerability to friction and shear
- Permeability
- Microbial load.

The predominant cause of IAD is that of the deleterious effect of moisture, whether from urine or loose stool. Excessive moisture over-hydrates the skin, causing it to become oedematous. As a result, the skin becomes increasingly fragile and vulnerable to breakdown. Once small tears appear in the skin, bacteria from either urine or faeces have the potential to cause infection, leading to further inflammation.

Pauline Beldon, retired tissue viability nurse

Practice points

- Skin affected with IAD is usually red/bright red, whereas pressure-damaged skin has a bluish purple, red, yellow or black colour.
- Avoiding or minimising the skin's exposure to faeces or urine, or both, as well as a good skin care regimen, can help to prevent IAD.

likely to report a bowel-only problem. The proportion of men and women reporting co-existing bladder and bowel problems were the same, women were more likely to report stress incontinence, while men were more likely to report enuresis. Both sexes reported that their quality of life was affected through stress, with their social lives being significantly affected by continence issues.

Faecal incontinence is described as the involuntary loss of solid or liquid stool that has become a social and/or hygienic problem (Abrams et al, 2005). It is not recognised as being a problem in itself, but rather a symptom of an underlying problem. Faecal incontinence is estimated to affect 1–10% of the adult population and between 0.5–1.0% experience regular episodes of incontinence which impacts on their quality of life (NICE, 2007). Brown and Sears (1993) estimated the problem may range from 17–66% in hospitalised elderly patients. However, for some, this would be a temporary problem associated with an acute medical condition or perhaps a side-effect of antibiotic therapy.

ASSESSMENT

While management of continence problems is important, emphasis should be placed on comprehensive assessment of the individual to determine the origin and extent of the problem (Cheater et al, 1999). Incontinence may be a symptom of another health issue which can be rectified/treated and, as such, should not be assumed to be normal. The type of incontinence should be assessed in order that the correct treatment can be instigated (Colpman, 2012).

It is often assumed that continence problems are an inevitable consequence of ageing (Dingwell and McLaffert, 2006) — this reduced quality of life is accepted erroneously as normal. Healthcare professionals should remember that they have a duty of care to ensure that all individuals receive a comprehensive assessment of their problem by an appropriately trained clinician (Nursing and Midwifery Council [NMC], 2008).

Comprehensive assessment enables healthcare professionals to determine whether the skin condition is a moisture lesion or incontinence-associated dermatitis (IAD).

A moisture lesion is defined as being caused by urine/faeces and/or perspiration, which results in the person's skin becoming either excoriated, with the skin developing red superficial lesions, or macerated, with the skin becoming pale, wet, soggy and shiny (All Wales Tissue Viability Nurses Forum and All Wales Continence Nurses Forum, 2014).

Incontinence-associated dermatitis is an inflammation of the skin caused by prolonged or repetitive contact with urine/faeces on the perineal or perigenital skin (Grey et al, 2012).

To assess the nature of incontinence, a history and basic assessment should be undertaken, including:

- Onset of incontinence
- Urine checked for infection
- Bladder scan to determine whether able to entirely void bladder
- Main urinary or bowel symptom
- Past medical history
- Drug therapy
- Levels of mobility
- Ability to communicate needs (Colpman, 2012).

It is possible in cases of faecal incontinence that there is a physical cause which may be revealed by more in-depth examination, such as rectal prolapse/acute haemorrhoids, acute anal sphincter injury, or an undiagnosed lower gastrointestinal tract cancer (NICE, 2007), which would necessitate referral to an appropriate surgical team.

CAUSES OF INCONTINENCE-ASSOCIATED DERMATITIS (IAD)

The skin is normally protected by what is described as an acid mantle. This consists of a protective coating provided by sebum, a secretion of the sebaceous glands. This is naturally slightly acidic, with the pH of the skin being usually between 4.0–7.0 (Lambers et al, 2006). The protective acid mantle is instrumental in maintaining the commensal resident bacteria that are attached to the skin, so that they can protect the individual from bacterial infection.

If the pH of the skin is raised above 7.0 to an alkaline state, this causes the commensal bacteria to disperse, which encourages bacterial growth and makes the individual more susceptible to potential dermal infection (Le Livre, 2000).

Urine pH ranges from 4.5–8.0. The variance is caused by a number of factors including dehydration, infection and drug treatment (Chatham and Carls, 2012). When urine becomes concentrated, the level of urea present rises, as does the pH, leading to a change in the skin's pH and potential skin damage.

Normal formed stool does not cause a problem provided that it does

Top tips:

Three top tips for treating IAD:

- Cleanse the skin routinely and after an episode of incontinence with an appropriate product (*Table 1*) and warm (not hot) water. Be gentle to avoid further damage
- Moisturise the skin daily/as needed
- Protect the skin by applying a moisture barrier cream/spray (*Table 2*).

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not remain in contact with the skin for an extended period of time. However, loose stool or diarrhoea increases the potential for skin damage by both increasing the skin's permeability, due to higher moisture presence against the skin, and elevating the pH. In addition, proteolytic enzymes and bacteria within faeces attack the skin causing further damage (Chatham and Carls, 2012).

The two main causes of diarrhoea or loose stool are complications related to enteral feeding (Wiesen et al, 2006) and *Clostridium difficile* (Tonna and Welsby, 2005). The resultant IAD presents as inflamed skin affecting the perineum, sacrum and buttocks (*Figure 1*).

Figure 1. *Widespread IAD in a 65-year-old male, caused by unmanaged diarrhoea.*

SKIN CLEANSING, AND PROTECTION

While management of the cause of incontinence is essential, it is equally important to act appropriately to protect the skin. Grey et al (2012) outlined guidelines for healthcare professionals in the cleansing and protection of the skin.

Skin protection is likely to involve the use of continence pads. These are designed to be worn in close proximity to the body and comprise three layers:

- A top layer designed to allow urine to pass through and so keep the skin dry
- An absorbent layer of cellulose to absorb and retain urine
- A backing layer (Colpman, 2012).

It is important that the individual wears the correct size and shape of pad for their body. This ensures close contact, but of greater importance is

Table 1: Examples of modern cleansing agents

Product	Active ingredients	Benefits	Application/instructions	Precautions
Secura™ (Smith and Nephew)	Hydroxypropel methylcellulose Aloe Benzethonium chloride Glycerin Polysorbate 20 Purified water	Gentle to the skin, leaves protective film to prevent moisture loss Antimicrobial properties	Secura is a liquid spray bottle and is sprayed directly onto the soiled area or onto a damp cloth then wiped No rinsing necessary	None stated by company
ComfortShield™ (SAGE products)	Liquid dimethicone moisturiser	Ready-to-use cloth. Cleanses and protects skin by depositing dimethicone	Prepared cloths in a packet or tub, ready to use	None stated by company
Proshield™ (H&R Healthcare)	Dimethicone 1%	May be used on intact or injured skin associated with incontinence	Available as a foam spray Proshield Foam and Spray Cleanser can either be sprayed directly onto the affected area and wiped off, or applied using a washcloth. No rinsing or moisturisers are needed	Not to be used alone if yeast/fungal infection present, but can be applied over an antifungal/anti-yeast cream
TENA Wash Cream™ (SCA)	Glyceral stearate Stearyl alcohol Water Cetearyl isononate Cetearath-20	Available as a 3-in-1 formula Used for frequent perineal skin care of incontinent patients and also for full body cleansing Helps maintain skin's pH and control odour	Apply directly to the skin with TENA wipes or gloves No rinsing required	Not to be used on broken skin Mildly scented
Clinisan™ foam cleanser (Synergy Health)	Amphoteric surfactant/ cocamide DEA Liquid paraffin/isopropyl myrisate Alkoxylated cetyl alcohol Triclosan Dimethicone	Available as direct-to-skin foam cleanser Neutral pH	Apply directly to skin No rinsing required	Not to be used on broken skin Contains perfume Contains antibacterial properties

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†Study included 38 residents of a long-term care facility. Textile wash gloves, soap and water were replaced with TENA Wash Cream and Wet Washcloths, and used in combination with TENA absorbent products.

Table 2: Examples of modern barrier creams

Product	Active ingredients	Benefits	Application/instructions	Precautions
LBF™ Barrier cream (range also available as No Sting Barrier Film Spray; Sterile No Sting Barrier Film Foam Applicator; and Sterile No Sting Barrier Wipes) (Clinimed)	Dimethicone	12-hour waterproof formulation, resist wash off pH balanced Will not block pads Highly concentrated, small amounts cover large area of skin (LBF range designed to provide a barrier against irritation from bodily fluids and to protect the skin from incontinence-associated skin damage and friction)	Cleanse and dry the skin before application	Should not be used on broken or infected skin
Cavilon™ Barrier cream (3M)	Dimethicone Acrylate Terpolymer Dicpryladpidate Coconut oil Mineral oil Acrylate Terpolymer	Non-petroleum based, will not block pads. Wash-off resistant Allows tape/dressing adherence to skin Hypoallergenic and pH balanced	Apply sparingly (pea-size amounts) Available in sachets or tube	Not to be used on infected areas of the skin, e.g. fungal infection
Cavilon™ No-sting barrier film (3M)	Hexamethyldisiloxane Acrylate Terpolymer Polyphenylmethylsilolaxane Isoctane	Primary barrier to bodily fluids, may be used peri stoma and wounds to protect against fluid Protective barrier against medical devices	Apply using either sponge applicator or spray Allow to dry completely before applying devices or clothing	Not to be used on infected areas of the skin, e.g. fungal infection Use of additional barrier creams may reduce effectiveness and is unnecessary
Secura ™ barrier cream (Smith and Nephew)	Contains 5% dimethicone	Protects skin from breakdown due to excessive moisture	Available in sachet or tube. Apply sparingly	Could affect adherence of adhesive products
Proshield Plus™ H&R Healthcare)	Dimethicone-based skin protectant containing copolymer bio-adhesives	May be used on both intact skin and that injured by incontinence	Available in a tube, to be used sparingly	None stated by company

that the pad is capable of absorbing the volume of urine the individual voids. It is advisable that pads are changed every 3–4 hours during the day and that they can be left *in situ* up to eight hours at night (McCoy, 2008).

However, as mentioned above, before resorting to the use of continence pads, the individual must have a continence assessment performed. This will avoid the use of unnecessary pads, which are neither comfortable nor dignified, and ensure that the root cause of the continence problem is addressed (Masuko, 2005).

Cleansers

Skin cleansing should not include the use of soap. The majority of soaps have an alkaline base and so would raise the skin's pH, altering it from its usual acidic base. In addition, the combination of soap and hard water produces a precipitate which remains on the skin (Timby, 1996). Soaps also adversely affect the skin by removing natural oils and causing dryness (Voegli, 2010). It is recommended that a skin cleanser is used. These are available in several forms — sprays, foams and cloth cleansers (*Table 1*).

Essentially, the cleanser should contain an emulsifier or surfactant to aid removal of dirt/faeces, without altering the pH of the skin. Proprietary cleansers do not require rinsing and so become a time-effective treatment. Many also contain a moisturiser, which precludes the use of an additional emollient for skin protection. Such cleansers are available as foams, sprays, mousse, cream or wash cloths impregnated with cleansers, which reduce the time spent by healthcare professionals and so encourage adherence to a regimen of best practice (Warshaw et al, 2002). Studies comparing 3-in-1 washcloths against pH neutral soap and water found that individuals were less likely to suffer IAD or, if IAD was already present, they suffered less severe lesions (Beeckman et al, 2011).

Moisturisers

Skin moisturisers are designed to aid protection and repair of damaged skin by maintaining the natural moisture within the skin, preventing its loss through the epidermis and repelling excess moisture in the form of urine (Grey et al, 2012). They differ from barrier creams, whose purpose is to protect and repel excessive moisture from the skin.

Barrier creams

Barrier creams are often used in continence care, and many now contain dimethicone, a silicone substance which is both moisture repellent and smooths the surface of the skin. These are superior to the older generation of barrier creams,

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such as zinc and castor oil, which had a tendency to clog continence pads and interfere with absorption (Penzer, 2008). Some examples of modern barrier creams are described in *Table 2*.

TREATMENT OF IAD

Incontinence-associated dermatitis is painful and debilitating. Consequently, prompt action should be taken to alleviate symptoms and calm the resultant inflamed skin. The skin excoriation tool for incontinent patients is used by the National Association of Tissue Viability Nurses (Scotland) (2009) to help healthcare professionals assess the skin and determine appropriate treatment.

Minor irritation may subside spontaneously once the individual's skin is protected using an appropriate barrier cream or film, as discussed above. However, if the condition has progressed unchecked, the individual may suffer a severe dermatitis which will necessitate the use of an antifungal cream to both calm the skin and treat any secondary infection, e.g. Clotrimazole 1% found in Canestan™ or Daktacort™ cream.

Particularly severe cases may require the addition of a steroid within a cream to reduce inflammation, e.g. Canestan hydrocortisone or Daktacort hydrocortisone (Grey et al, 2012). When a severe case of IAD occurs or fails to respond to treatment, it is vital that healthcare professionals recognise the limitations of their knowledge and make appropriate referrals to continence specialists.

CONCLUSION

An individual suffering from incontinence is entitled to a comprehensive assessment by a healthcare professional with appropriate skills. It should not be assumed that their incontinence is the result of ageing, as incontinence may be due to an underlying medical problem which requires intervention.

In addition, an appropriate continence management regimen should be implemented, involving use of appropriate appliances/continence pads and skin care to protect the individual's skin from potential harm. **SCT**

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- Painful

› And:
- Cause restricted mobility
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Which, in turn, can cause:
- Social isolation
- Embarrassment
- Anxiety
- Depression
- Low self-esteem
- Poor body image
- Feelings of uncleanliness.

Physical factors to consider in holistic assessment + Psychosocial factors to consider in holistic assessment

Holistic assessment

› Holistic assessment of a patient with a leg ulcer should include not only the actual wound (i.e. wound type, size, location, tissue types present, symptoms [exudate, maceration, odour, infection, pain]), condition of the periwound skin, wound edge, but also the patient's perspective and the impact that the ulcer is having on

Skin care

Caring for the whole limb, wound and foot, is a fundamental aspect of treating leg ulcers and aids the healing process[1].

Routine cleansing or debriding of the limb is important as:

› Observation of a wound is much easier if all debris has been removed through washing or debridement. Removal of slough, dry skin, etc promotes growth of new epithelium.

› It can improve skin integrity, enabling it to be an effective barrier against environmental elements, toxins and bacteria.

› It gives clinicians the opportunity to detect other symptoms, such as spider veins, hyperkeratosis, dermatitis and to inspect the feet for hard skin, cracks and fissures which can be a focus for infection, and toenails for signs of fungal infections.

› Patients feel cleaner[1]. They may have been unable to lie in a bath or shower due to dressings/compression bandages, which compromises normal daily hygiene measures[2].

Using debridement cloths

Debriding wounds at an early stage helps to improve visibility of the wound for accurate assessment and to accelerate healing,

his/her quality of life and wellbeing.

Washing limbs

Skin care is an essential activity of daily living, which sometimes becomes difficult when in compression bandaging. Regularly washing legs should be part of any management plan[2]. Leg Clubs have shown that patients benefit from the therapeutic, non-invasive process of having limbs washed[3].

Practice points:

- Ensure that the floor is dry and mop up spillages.
- Line bucket, so that all soap and skin scale can be disposed of easily.
- Observe correct handwashing techniques.
- Follow correct lifting and handling techniques to avoid back injury.
- The water should be at the correct temperature to avoid the risk of scalds, or any tissue damage. Soak the leg in the warm water in the lined bucket and then gently remove any loose skin/scabs if they come away easily.
- Never scrub the wound with gauze or cotton wool, as this can further damage the skin.
- Emollients can be added to the water to help with removing dead skin cells, but always check if there are any known allergies.

Before cleansing with pre-moistened debridement cloth (UCS™)

After cleansing with debridement cloth (UCS™)

thereby improving the patient experience.

Practice points:

- Debridement cloths, which can be used without specialist training, offer an alternative way to gently and safely debride the wound and care for the perilesional skin, while also removing some of the disadvantages of washing in a community setting, i.e. back injury from lifting buckets of water; infection risk of transporting, cleaning and storing buckets; as well as the time factor involved[1].
- Sterile, pre-moistened cloths do not require water[1], and the cloth can simply be wiped across the wound and limb to remove dead skin cells and moisturise dry skin. They can also be used to clean between the toes.
- They also reduce odour, promote granulation and are soothing, causing minimal trauma and pain.
- They are simple to use and, therefore, self-care is promoted.

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IN BRIEF

- People with chronic oedema/lymphoedema may have 'wet, leaking legs' (i.e. lymphatic fluid 'weeping' through to the skin's surface).
- This complication has a negative effect on quality of life and is costly to the health service in terms of nursing time and treatments.
- Treatment includes a good skin care regimen, absorbent dressings and compression therapy.
- Educating and involving patients in their own self-care is crucial to maintain concordance with treatment.

KEY WORDS:

- Chronic oedema
- Lymphorrhea
- Assessment
- Compression therapy
- Skin care
- Patient education and engagement

Identifying and managing 'wet' or 'leaky' legs

Kirsty Mahoney

The terms 'wet' or 'leaky' legs describe the pale amber-coloured lymph fluid that 'weeps' through breaks in the skin of patients with severely oedematous limbs, when the lymphatic system can no longer cope with the increased fluid volume (Delon, 2012). This fluid increases the risk of skin breakdown and complications of infection (Lymphoedema Framework, 2006), posing a considerable challenge to clinicians. The distress and discomfort it may cause to patients should not be underestimated, as it can result in depression, isolation and embarrassment (Rich and McLachlan, 2003).

Figure 1. *Wet, leaking leg (lymphorrhea).*

WHAT CAUSES 'WET' OR 'LEAKY' LEGS?

Chronic oedema, i.e. swelling that has been present for at least three months which does not resolve on elevation, is the result of excess fluid within interstitial spaces and tissues that cannot be transported away effectively (Moffatt, 2007; Hardy, 2010). Its causes can be complex and due to a number of contributing factors (*Table 1*; Keeley, 2009).

If left undetected and untreated, symptoms will steadily worsen, with the condition becoming irreversible (Timmons and Bianchi, 2008). Early detection and appropriate management of oedema can reduce complications such as skin changes, cellulitis, leakage of fluid ('wet' or 'leaky' legs), odour, excoriation and maceration (Lymphoedema Framework, 2006).

ASSESSMENT

The key to effective treatment lies in undertaking a comprehensive holistic assessment to identify underlying factors that may be contributing to oedema, so that a plan of care can be put in place that will stop the disease from progressing.

Clinicians undertaking assessment should be skilled and able to identify correctly any underlying aetiologies in order to facilitate an effective management plan.

To assist in the assessment process, it is helpful to use a systematic

Practice point

Any break in the skin of oedematous limbs, however small, e.g. cuts, abrasions, insect bites, or cracks from being too dry, can cause fluid to leak out and result in 'wet' or 'leaky' legs.

Kirsty Mahoney, clinical nurse specialist, wound healing, Cardiff and Vale University Health Board

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Table 1:

Possible causes of chronic limb oedema

Dependency oedema, due to immobility
Heart failure (cardiac oedema)
Venous oedema as a result of venous disease or severe varicose veins
Obesity
Lymphoedema: both primary and secondary
Oedema associated with cancer

approach, such as the one suggested by Harding et al (2007) with the acronym HEIDI. This stands for important aspects of assessing and managing patients:

- History — relevant
- Examination — appropriate
- Diagnosis — likely or definite
- Indicators — of progress or complications.

History

Obtaining a good patient history can highlight any underlying pathology that may contribute to oedema and wet legs. This will include any past or present history that may reveal any predisposing factors that influence the arterial or venous status of the limb, such as previous episodes of oedema, ulceration, cellulitis, deep vein thrombosis (DVT), or varicose veins.

It is also important to find out if the patient has been previously treated with compression therapy and if they were concordant. It should be established if there is any current or previous history of immobility or surgery, which may make ankle movement difficult or influence the patient's ability to use the calf muscle to aid venous return. The patient should also be asked how long the problem has been present and whether it is bilateral. Cardiac history, such as stroke or heart disease and diabetes are relevant, and may indicate the possible development of peripheral vascular disease.

Top tip:

A holistic approach is essential to establish accurate diagnosis of the underlying problem and faciliate decision-making that ensures appropriate, cost-effective, patient-centred care.

Other comorbidities and indicators that may influence the development of wet legs may be renal, liver disease, arthritis. Present prescribed medication may also contribute to ankle swelling (Timmons and Bianchi, 2008).

Dietary history is also pertinent, as malnutrition and low protein may cause oedema and obesity which may damage the venous and lymphatic systems, which, in turn, exacerbates leg oedema and leg leakage. A referral to dieticians may be required if an issue is identified.

The psychological impact of a wet, leaking leg should always be considered. Any depression, anxiety or distress that the problem has caused should be identified and discussed, so that interventions can be put in place to help patients cope with this often embarrassing condition (Franks et al, 2006).

Examination

There should be a full examination of both limbs to observe for skin changes, oedema, eczema or signs of infection present. It should also be established if the symptoms are in one leg or bilateral. *Table 2* illustrates indicators that should be considered.

Investigations

Full vascular assessment should be performed to exclude arterial disease and ensure that the application of compression is safe. This can be undertaken by an appropriately trained clinician with a hand-held Doppler (Scottish Intercollegiate Guidelines Network [SIGN], 2010). A normal ankle brachial pressure index (ABPI) should measure >0.8. However, this reading should only be interpreted in conjunction with other indicators identified from the holistic assessment. If the limb is too oedematous, it may be necessary to perform toe pressures.

Other investigations that may be appropriate to assist with diagnosis are C-reactive protein (CRP; infection), liver function test (LFT; liver failure), full blood count (FBC; anaemia).

Diagnosis

Once the signs and symptoms, medical history and investigations are put together, a diagnosis can be made. This should guide treatment planning.

MANAGEMENT

In the author's clinical experience, management of a wet, oedematous limb can sometimes be difficult both for the clinician and patient. Issues in practice may include manual handling, as the limb may be heavy to lift making dressing application difficult. Two nurses may be needed to help with redressing legs, or advice sought from manual-handling advisors on equipment available to prevent back injury.

Mobility for the patient often becomes restricted due to the weight of the limb. Dressings may become soggy and heavy causing discomfort to the patient and resulting in dressing slippage, which may cause further trauma to the skin. Leaking fluid can soil clothing and bed linen, which may cause distress and embarrassment to the patient (Anderson, 2003).

Patient comorbidities, such as arterial status or cardiac failure, may influence management options, as high compression is contraindicated in these conditions and may have a detrimental

Table 2: Limb assessment

Limb observation	Observe for skin changes, such as: - Papillomatosis - Haemosiderin staining - Varicose veins - Ankle flare - Erythema - Eczema - Cellulitis Measure limb
Type of oedema present	- Is it bilateral? - Is it soft, pitting?
Exudate	- Colour - Amount - Consistency
Is ulcer present?	- Location on the limb - Wound measurements - Tissue type witin the wound bed

Practice point

It should be recognised that there may be some conditions where optimum treatment, such as compression, may not be appropriate, e.g. cardiac failure and peripheral vascular disease (PVD). For these patients a multidisciplinary approach is recommended, as cardiac patients will need management with medication, such as diuretics and ACE inhibitors, and those with PVD may require surgical intervention.

effect on the patient. Compression therapy increases the circulating fluid volume influencing cardiac output, which may worsen symptoms in patients with cardiac failure. In patients with arterial disease, the application of compression may lead to necrosis or loss of limb (SIGN, 2010). Management options include:

- Treating the underlying condition
- Compression therapy
- Superabsorbent dressings
- Skin care
- Excercise/movement.

Practice point

Bandages can be described as elastic or non-elastic, depending on whether they are made from elastic or non-elastic fibres.

Elastic (or long-stretch) bandage systems contain elastomer fibres, allowing them to stretch and maintain pressures of around 40mmHg. This includes the four-layer bandage system.

Non-elastic (or short-stretch) systems have minimal extensibility due to non-elastomer fibres and can offer higher working pressures of around 30–60mmHg when the patient walks or moves the calf muscle. These bandages are often used in lymphoedema care.

Patient engagement and concordance, which is influenced by a patient's knowledge and understanding of their condition and therapy, is of paramount importance if treatment is to be successful (International Lymphoedema Framework [ILF], 2012).

Compression therapy

Compression therapy seeks to reduce oedema and assist venous return (World Union of Wound Healing Societies [WUWHS], 2008) and can be provided by bandages or hosiery. Compression hosiery is not recommended in patients with excessive lymphorrhea (Lymphoedema Framework, 2006). However, hosiery may be used after resolving the problem.

Bandages are classed by the compression they offer and the properties they display. Strength of compression bandages are described as mild, moderate, high and very high (European Wound Management Association [EWMA], 2004) (*Table 3*).

The selection of which bandage to use will depend on local formulary, patient concordance and diagnosis or cause of 'wet' legs.

It may not be appropriate without specialist supervision to apply compression to patients with uncontrolled heart failure, arterial disease, acute cellulitis, acute DVT, diabetes and rheumatoid arthritis, or severe peripheral neuropathy (Osborne, 2009). If high compression is not tolerated or safe to apply, reduced compression may be considered, such as wool and a class 3a bandage offering light compression of 14–17mmHg, or a moderate 3b bandage giving 18–24 mmHg of pressure (EWMA, 2003; Moffatt, 2007).

Dressing regimen

Dressings selected should be in line with what is available on the local formulary. Clinicians should have a good knowledge of the key properties of absorbent dressings and select those that are able to wick away and retain fluid, thus preventing damage to the surrounding skin. Dressings should also be cost-effective,

Table 3: Bandage strengths

Type	Level of compression
3a	Light: 14–17mmHg
3b	Moderate: 18–24mmHg
3c	High: 25–35mmHg
3d	Very high: 35–50mmHg

comfortable and easy to remove, without adhering and causing further skin trauma (Tickle, 2013). If the dressings are to be used under compression, it is important that they do not effect the graduated pressure delivered or cause indentation. These may include superabsorbent and hydrofiber dressings, which have the ability to absorb high volumes of fluid and protect the periwound area. Generally, foams are not recommended for leaking legs, as they are often unable to cope with the volume of fluid leading to skin maceration.

Skin care

Regular skin assessment is imperative, as wet legs can lead to further skin breakdown and infection. Patients should be encouraged to inspect their skin for signs of irritation, dryness, leakage, tenderness or temperature on a daily basis (unless prevented from doing so by bandages), particularly in skinfolds and between the toes (Atkin, 2014).

If there is wet varicose eczema, a steroid regimen is required to reduce inflammation. Understanding of steroid potency is important. In the author's clinical experience, it is often better to treat with a high potency steroid daily for a week, and then reduce to a lower potency.

Daily skin cleansing with soap substitutes is important to maintain integrity, ensuring that the skin is

Top tip:

Patients should be encouraged to participate in daily applications of emollients, applied in a downward motion to avoid blocking hair follicles and the incidence of folliculitis.

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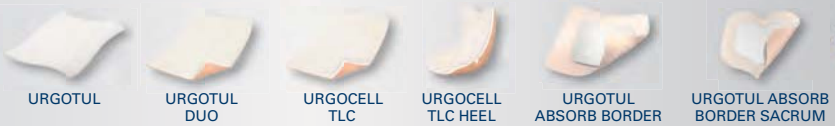

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Table 4: Guidance for treating 'wet' or 'leaky' legs

	Causes, signs and symptoms	Treatment options
Dependent/gravitational oedema 	› Occurs in immobile patients due to sitting in chairs or wheelchairs for long periods of time › Patients who fail to go to bed at night but stay sitting up in a chair present with some of the worst cases (Franks et al, 1995) › Pressure develops in venous circulation leading to increased capillary permeability, which forces fluid into the tissues causing oedema. Any break in the skin or blistering will lead to leakage of interstitial fluid onto the skin's surface (EWMA, 2003)	› Encourage foot elevation. This should be with the whole leg supported and knee slightly bent to prevent hypertension (Beldon, 2013) › Dorsiflexion exercises and rotation of the ankle improve muscle pump action (Davies et al, 2008) › Compression, depending on comorbidities and ABPI › Use of absorbent dressings › Good skin care regimen › Early intervention helps to prevent disease progression and the development of 'wet' or 'leaky legs'
Venous disease 	› Oedema in limbs caused by damage to valves in the veins leading to chronic venous hypertension › Skin changes include haemosiderin staining, lipodermatosclerosis, ankle flare and varicose eczema › Starts with soft pitting that reduces on elevation › Normal ABPI= 0.8–1.2 (SIGN, 2010) › Patients are at risk of cellulitis and ulceration	› Compression according to ABPI and comorbidities › Good skin care with emollients is essential › Wash the legs with soap substitutes, ensuring that the area is dried thoroughly › Steroids may be required if varicose eczema is present › Avoid standing for long periods and encourage leg elevation › Treat ulceration according to wound bed preparation › Cellulitis should be treated with antibiotics and antimicrobial dressings, as per wound formulary
Lymphatic disease 	› Primary lymphoedema is caused by an abnormality in the development of the lymphatic system, which leads to poor lymphatic drainage › Secondary lymphoedema is caused by impaired lymphatic drainage, as a result of surgery, radiotherapy, infection or trauma › Stemmer's sign is positive › Limbs are misshapen with tissue changes, such as hyperkeratosis and papillomatosis	› Intense bandaging and manual lymphatic drainage (MLD) › Superabsorbent dressings › Skin care with emollients › Refer to lymphoedema service if available
Cardiac oedema 	› Oedema is often soft and pitting, but can become fibrous over time. Typically presents in both legs › Caused when cardiac function is impaired and blood is no longer pumped around the body › Blisters appear and leak serous fluid	› Needs a multidisciplinary approach to management › Requires medication to manage cardiac failure › May not be able to manage oedema with compression. If able to tolerate, compression should start with modified low compression on one limb first and observe for any increase in cardiac symptoms, such as breathlessness › Symptom management is with superabsorbent dressings, skin care, elevation and ankle exercises

Expert commentary

Wet or leaky legs can be extremely debilitating for patients and the impact on their quality of life cannot be underestimated. Sadly, it is commonplace for patients suffering with this health complaint to have three pairs of slippers just to absorb the constant drip... drip… drip. This article identifies key aspects to help clinicians in establishing the underlying cause, and provides practical everyday management for both the patient and community nurse.

Given the many causes of 'leaky' legs, clinicians need to take a strategic management approach using holistic assessment. Getting to the 'root of the problem' is not straightforward and specific skills and knowledge in contributory factors is a prerequisite.

Active management of chronic oedema can halt its progression onto irreversible lymphoedema. Lastly, I would stress the importance of assessing the whole limb, as well as the unaffected leg on clinical examination. Chronic oedema may not be restricted to below the knee only.

Kate Arkley, community nurse, tissue viability, Galway, Ireland

thoroughly dried to prevent further breakdown. Emollients should also be applied to protect the skin and improve its condition.

Davies et al (2007) recommended an exercise regimen of ankle circling, planter flexion and dorsiflexion to improve calf muscle strength which, in turn, may improve venous return. It must be recognised that some patients may not be able to perform the exercises due to paralysis, weight of the limb, or a fixed ankle joint.

Table 4 offers specific guidance according to the cause of leg leakage.

Did you know:

With an increase in both the aging population and patients who are obese, the prevalence of chronic oedema is rising. The current drive for more patients with long-term conditions to be seen in the community, inevitably means that community nurses are more likely to be involved in identifying and managing patients with oedema and its associated complications.

CONCLUSION

The cause of wet legs is often complex and requires a full holistic clinical assessment to establish the aetiology of the problem and allow accurate decision-making. Care planning should be fully discussed with the patient and relatives to ensure that there is good understanding of the rationale behind the treatment advised. Patient education and involvement helps to improve patient concordance, and, ultimately, may influence successful outcomes and patient wellbeing. SCT

Practice points

- Identify cause of leaking legs.
- Treat the cause.
- Encourage leg elevation and going to bed at night.
- Encourage taking exercise and having a good diet.
- Be aware that these patients are susceptible to infection — fungal infection should be considered in recurrent infections.
- Educate about good skin care, including the use of emollients.
- Compliance/concordance with treatment is essential.

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Clinical companion 3

SKIN CARE TODAY

Periwound skin care

About exudate

Exudate is the fluid that leaks from blood capillaries to help a wound heal. It helps to maintain a moist wound environment and:

- Removes dead tissue through autolytic debridement
- Repairs damaged tissue
- Nourishes epithelial cells
- Prevents the wound from drying out.

The volume produced should decrease as the wound heals, but some chronic wounds produce too much exudate. If not managed properly, this can result in delayed healing and damage to the periwound skin, i.e. maceration and excoriation.

Types of exudate

- **Acute wound exudate**
  This healthy exudate helps the wound to heal, as long as the healing process is not delayed.
- **Chronic wound exudate**
  Excessive exudate associated with chronic wounds has a different make-up and can become a 'wounding agent' in its own right[1].

Skin assessment — focus on periwound skin

- The periwound skin should be examined meticulously as part of holistic wound assessment.

Signs that the skin's integrity is under threat:

- Maceration
- Excoriation
- Erythema (skin redness)
- Loss of colour
- Spongy texture
- Loss of skin integrity[2]

Act early to prevent maceration and skin damage

- Minimise the periwound skin's contact with exudate.
- Treat the underlying causes of high volumes of exudate.
- Choose an appropriate dressing to combat excess exudate. When dressings are unable to handle the volume produced by a wound, exudate leaks from the wound area onto healthy skin. It is important that dressings can cope with the volume of exudate being produced. It is also vital to ensure that the wound has an optimum level of moisture to assist with wound healing. Superabsorbent dressings have an enhanced fluid-handling capacity and help to prevent maceration. They can lock excessive exudate into the dressing, preventing proteases from damaging healthy skin and keeping bacteria away from the wound's surface.
- Use atraumatic dressings. These prevent the sensitive periwound skin from being damaged by frequent dressing changes. Many superabsorbent

Maceration

› Maceration occurs when healthy skin is in contact with moisture (e.g. wound fluid, sweat, urine) for prolonged periods, which can cause the skin to become soft/soggy. It presents as a pale, opaque rim surrounding the wound.

Excoriation

› Excoriation occurs when periwound skin is in contact with toxins from excess wound exudate for prolonged periods, which can strip the top layers and erode healthy periwound skin.

Maceration and excoriation can cause pain and discomfort and enlarge the wound area.

dressings will have an atraumatic contact layer, or a separate contact layer to avoid any adhesion which may cause stripping to the skin.

› Carry out sufficient dressing changes. This prevents unnecessary exudate contact with periwound skin.

› Use barrier creams to protect the surrounding skin from being damaged by excess exudate. An alternative is a hydrocolloid or a polyurethane film.

› Develop a good skin care regimen. Use emollients to clean the wound area.

Reassess the wound

Assess the periwound area at every dressing change, so that any changes can be acted upon quickly. Investigate pain levels, itching and any soreness present, as well as visible changes[3].

Quality of life

› Excessive exudate can have a negative psychological impact. Exudate and odour have been reported to cause feelings of disgust and self-loathing, which can lead to social isolation[4,5]. Inadequate dressings can lead to leakage and may be bulgy and uncomfortable, and impair the patient's mobility.

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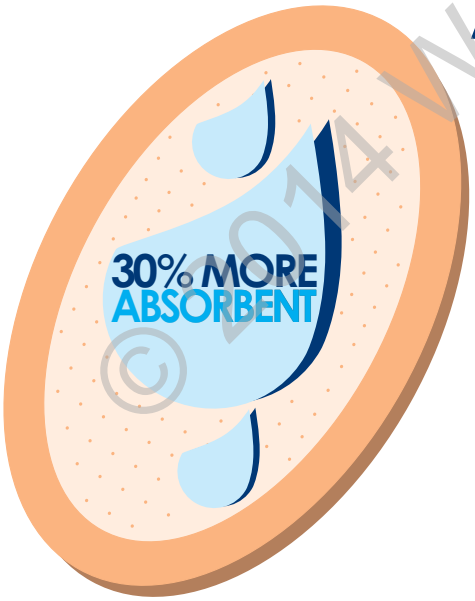

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IN BRIEF

- Visiting patients in their own homes to perform wound care, continence care, etc, gives community nurses the opportunity to detect skin conditions while examining patients.
- Knowledge of infections and infestations that can affect the skin is important to provide holistic care.
- Educating patients about their condition and instigating the correct treatment regimen helps to prevent the negative impact that skin infections can have on quality of life.

KEY WORDS:

- Impetigo
- Scabies
- Fungal infections
- Viral warts
- Skin care
- Quality of life

Identifying common skin infections and infestations

Sandra Lawton

Skin infections and infestations are commonly seen in all care settings and span all age groups. For this reason, it is vital that community nurses have a working knowledge of these types of infections and know what to do if they come across them.

Some of the more common skin infections and/or infestations, include:

- Impetigo
- Fungal infections
- Viral warts
- Scabies.

IMPETIGO

What is Impetigo?

Impetigo is a highly contagious superficial bacterial skin infection usually transmitted by direct contact. It is classified as either:

- Primary impetigo: when there is direct bacterial invasion of minor breaks in normal skin
- Secondary impetigo: where the infection is secondary to an underlying skin disease, such as eczema and scabies (Koning et al, 2012), or develops as a result of trauma to the skin from burns, bites or lacerations (Fitzpatrick et al, 2001).

Figure 1. *Patient with impetigo.*

There are two types of impetigo, non-bullous and bullous (bullous means to be characterised by blisters or bullae).

Who gets it?

Impetigo is frequently seen in children — although adults can contract it — with an annual incidence of around 2.8% in children up to four years of age; and 1.6% in children between five and 15 years of age (National Institute of Health and Care Excellence [NICE], 2013a).

What does it look like?

Non-bullous impetigo vesicles (small fluid-filled blisters) or pustules (*Figure 1*) commonly present around the mouth and nose, although other areas of the face and extremities may be involved. These lesions rapidly burst and develop

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Impetigo — facts...

- Non-bullous impetigo (impetigo contagiosa or crusted impetigo) is the most common form, accounting for three-quarters of cases, with *Staphylococcus aureus* being the main cause. *Streptococcus pyogenes* is implicated in fewer cases, which develop either due to *S. pyogenes* alone or in combination with *S.aureus* and bullous impetigo (NICE, 2013a).
- Bullous impetigo is always caused by *S. aureus* (Cole and Gazewood, 2007; Koning et al, 2012).

into gold-crusted plaques, typically 2cm in diameter (these have been described as resembling glued-on cornflakes). Satellite lesions may also occur due to autoinoculation (self-infection) (NICE, 2013a).

Bullous impetigo is characterised by flaccid, fluid-filled vesicles and blisters (bullae), between 1–2cm in diameter. When these rupture they leave the skin raw and form thin, flat, brown-to-golden crusts. The lesions are multiple and spread rapidly. They are also painful and the patient may develop systemic symptoms (weakness, fever and diarrhoea), and lymphadenopathy (swelling of the lymph nodes).

What tests should be done?

Skin swabs are not necessary to diagnose impetigo. Instead, swabs should only be used to identify the bacteria involved and its sensitivity to antibiotics if the infection is (NICE, 2013a):

- Very extensive or severe
- Recurrent, in which case a nasal swab for Staphylococcal carriage could be considered (nasal carriage of *S. aureus* is a known risk factor for skin infections)
- Suspected as being a community outbreak
- Suspected as being caused by meticillin-resistant *S. aureus* (MRSA).

How is impetigo treated?

Localised non-bullous impetigo should be treated with topical fusidic acid (three to four times daily, for seven days [eMC, 2013]). Before it is applied, the crusts of any plaques should be removed by soaking them in soapy water (as long as this does not cause discomfort). Removal of the crust allows the antibiotic to come into direct contact with the bacteria rather than being wasted on dry, exfoliating skin (Watkins, 2005).

Topical antibiotics (mupirocin and retapamulin) are not recommended as a first-choice treatment; neither are topical antiseptics, as there is a lack of evidence to support their efficacy (Koning et al, 2012).

If the impetigo is bullous, extensive, or severe with systemic symptoms, oral antibiotics are the first-choice treatment (NICE, 2013a).

Complications

The infection may spread locally and systemically, resulting in cellulitis (infection of the deeper layers of the skin and the underlying tissue), lymphangitis (inflammation of the lymphatic system), or septicaemia (invasion of bacteria into the bloodstream).

Non-infectious complications of *S. pyogenes* infection include guttate psoriasis (an acute skin eruption), scarlet fever, and glomerulonephritis (an inflammation of the kidney that can lead to kidney failure) (Koning et al, 2012).

More rarely, exotoxins (toxins secreted by bacteria) produced by some strains of *S. aureus* may result in staphylococcal toxic shock syndrome or staphylococcal scalded skin syndrome (SSSS) (results in widespread formation of fluid filled blisters) (DermNet NZ, 2013a).

FUNGAL INFECTIONS

What are fungal infections?

Fungal infections of the skin (tinea) are caused by dermatophytes or fungi that require keratin for growth — keratin being the key structural

Did you know:

Bullous impetigo less commonly affects the face, more often developing on the axilla (underarm), neck folds and 'nappy' area (NICE, 2013a).

Credit: Evanherk at nl.wikipedia

THE SCIENCE — HOW DOES THE SKIN BECOME INFECTED?

Skin infections such as impetigo occur when bacteria (such as *Staphylococcus*) access a break in the skin, such as a cut or crack in dry skin. This results in symptoms such as boils or abscesses — pus-filled lumps on the surface or just under the skin, which are often painful. This in turn can lead to a crust on the skin (impetigo), or redness, swelling and pain in the underlying tissue (cellulitis). If these conditions are not treated, invasive infections can develop, which have more severe and wide-ranging symptoms including fever, low blood pressure, confusion and shortness of breath.
Source: www.nhs.uk

Did you know:

The most common organism in the UK is *Trichophyton rubrum*, which colonises layers of dead skin and is the most common cause of conditions such as athlete's foot, fungal infections of the nails and ringworm. The exception is the scalp, where *Trichophyton tonsurans* and *Microsporum canis* predominate (Primary Care Dermatology Society [PCDS], 2013).

component of the outer layer of human skin, hair and nails.

Fungal infections can be acquired from three sources (Fitzpatrick et al, 2001; NICE, 2013b):

- Anthropophilic: person-to-person transmission by fomites (any object or substance that can carry infectious organisms) and direct contact
- Zoophilic: direct animal-to-human contact
- Geophilic: contact with the environment (soil), though this is rare.

There are three genera of dermatophyte:

- *Trichophyton*
- *Microsporum*
- *Epidermophyton*.

What does it look like and who gets it?

On the body, the rash typically presents as one or more red or pink flat or slightly raised patches of skin, which enlarge to become ring-shaped lesions with red scaly borders and a clear central area.

Other fungal infections vary clinically depending on the site of infection (NICE, 2013b):

- Tinea barbae: a zoophilic infection of the beard and moustache in adult males
- Tinea capitis: an anthropophilic and zoophilic infection of the head, common in children
- Tinea corporis: a zoophilic infection of the body
- Tinea cruris: an anthropophilic infection of the groin (also known as 'jock itch'), common in adolescent and young adult men, although it may also be seen in post-pubertal females who are overweight or wear tight clothing (Andrews and Burns, 2008)
- Tinea faciei: an anthropophilic and zoophilic infection of the face, seen in children but not common
- Tinea manuum: a zoophilic and geophilic infection of the hands with an increased risk among manual workers
- Tinea pedis: an anthropophilic infection of the feet common in young adult men (also called athlete's foot)
- Tinea unguium: an anthropophilic infection of the nails, common in older people, but rare in children (Williams, 1993).

What tests should be done?

Skin, hair and nail samples (mycology) should be taken for microscopy and culture if the diagnosis is unclear, the infection has not responded to standard topical antifungals, or oral anti-fungal treatment is being considered (NICE, 2013b).

How is it treated?

Topical anti-fungal treatments can be used where the infection is contained in one site and is of limited extent. Oral anti-fungal treatments are used in hair and nail disease; where there are multiple sites involved; if the lesions are extensive; and where topical treatments have failed (Graham-Brown and Bourke, 1998).

Top tip:

Referral to a dermatology specialist/department should be sought if there is any doubt as to the diagnosis of a fungal infection; there is no response to treatment; the infection is severe, extensive or recurrent; or if the patient is immunocompromised (NICE, 2013b).

Complications

Complications of fungal infection can include:

- Cellulitis
- Patients with tinea capitis may experience kerion (painful, pustular, 'boggy' mass on the scalp, and hair loss), which requires urgent referral (NICE, 2013c)
- Tinea incognito: if a fungal infection is misdiagnosed as eczema and treated with a topical corticosteroid, its appearance will be altered. The steroid cream may initially dampen down the inflammation and settle the symptoms of itch, however, when the cream is stopped, these symptoms return — the more steroid cream is applied, the more extensive the fungal infection becomes.

VIRAL WARTS

What are warts?

Warts are small rough growths (of 1mm to over 1cm in diameter) which are caused by the human papilloma virus (HPV). They can appear anywhere on the skin but are most commonly seen on the hands and feet. A verruca (also known as a plantar wart) is a wart on the sole of the foot.

Warts are usually spread by direct skin-to-skin contact, or indirectly via contact with contaminated floors or surfaces

Practice point

In children, 50% of warts will disappear within six months — even without treatment — while 90% resolve within two years. They are more persistent in adults, but eventually clear up on their own. However, in immunosuppressed patients they can persist and almost never disappear despite treatment (NICE, 2009).

(for example in swimming pools or communal washing areas). Infection is more likely to occur if the skin is damaged or wet.

Who gets them?

Warts are common and most people will experience them at some point in their lives, although they are more common in children and adolescents.

What do they look like?

Warts have a hard, 'verrucous' surface. There is often a tiny black dot in the middle of each scaly spot, due to a thrombosed capillary blood vessel. There are various types of viral wart (DermNet NZ, 2013b):

- Common warts appear on the backs of fingers or toes, and on the knees
- Plantar warts (verrucas)
- Mosaic warts develop on the sole of the foot and appear in clusters over an area, sometimes several centimetres in diameter
- Plane, or flat, warts
- Periungual warts develop at the sides or under the nails and can distort nail growth
- Filiform warts are characterised by a long 'stalk'
- Oral warts can affect the lips and even the inside of the cheeks
- Genital warts.

What tests should be done?

Tests are rarely necessary to diagnosis viral warts as they are so common and have a characteristic appearance.

How are they treated?

As warts are not a serious problem, they are often left alone to resolve naturally. However, in some cases, they may be painful, look ugly and cause embarrassment. To remove them clinicians have to stimulate the body's own immune system to attack the wart virus. This requires time and is dependent on the age, site and type of wart (DermNet NZ, 2013a), however, various techniques are available:

- Occlusion with duct tape (Nottingham Support Group for Carers of Children with Eczema [NSGCCE], 2014)
- Chemical applications of topical salicylic acid
- Cryotherapy (medical use of low temperatures).

Over-the-counter freeze sprays, glutaraldehyde (a solution used to sterilise medical and dental equipment), formaldehyde (chemical used as a disinfectant), and silver nitrate (a caustic chemical compound that destroys skin cells and is sometimes used to treat skin conditions) are not recommended (NICE, 2009).

Complications and referral

This is rarely necessary as warts can generally be managed in primary care, unless there is uncertainty about the diagnosis or the warts are multiple or recalcitrant (NICE, 2009).

Credit: Kalumet @ commons.wikimedia.org

Figure 2.
The human parasite Sarcoptes scabiei.

SCABIES

What is scabies?

Scabies is an intensely itchy skin infestation caused by the human parasite *Sarcoptes scabiei* (or 'itch mite' [*Figure 2*]), which is transmitted from person-to-person via direct contact with the skin. As the itch and rash take 2–6 weeks to develop in a person who has been infested with scabies for the first time, people are often infectious before the rash develops (NICE, 2011).

Who gets it?

It is estimated that approximately 100 people per 100,000 of the population visit their GP with scabies each month in the UK. The prevalence is currently rising in the UK (due partly to asymptomatic carriage, drug resistance, and tourism from countries or districts with a higher incidence) and is highest in urban areas; in the north of the country; in children and women; and during the winter)

(Downs et al, 1999). Scabies is commonly seen in residential and nursing homes because of the close contact between residents and carers, but it can affect anyone irrespective of age or gender.

What does it look like?

The most common lesions caused by scabies are papules, vesicles, pustules, and nodules with evidence of 'burrows'. These burrows may be seen with the naked eye (a magnifier is helpful), although they can be difficult to identify if the skin has been scratched or the person also has eczema. They commonly appear on the hands and wrists as fine, wavy, grey, dark or silvery lines with a minute speck (the mite) at the closed end. Burrows measure a few millimetres to 1.5cm. The point of entry of the mite — the most superficial part of the burrow — has a slightly scaly appearance, and at the distal end there may be a vesicle next to the mite. The presentation may differ according to the age of the host (NICE, 2011).

What tests should be done?

A diagnosis of scabies is usually made from the patient history and examination (including the use of magnification to identify the mites and burrows), as well as from the history of the family and any close contacts. Skin scrapings may be taken to look for the mite.

How is it treated?

Simultaneously (within 24 hours) all members of the household, close contacts, and sexual contacts should be treated with a topical insecticide (choice will be based on age, pregnancy and whether the patient is breastfeeding), even if they have no symptoms. Two applications of topical insecticide a week apart will be required. Any signs of infection should be treated and the patient told that the itching may take several weeks to settle.

Any clothes, towels and bed linen that has come into contact with those affected should be machine washed (at 50°C or above) on the day of application of the first treatment (NICE, 2011).

Complications

A secondary infection (such as impetigo) and/or a particularly severe form of scabies known as 'crusted' or 'Norwegian' scabies are two possible complications of scabies. In crusted scabies the increase in the number of mites (sometimes up to many thousands or millions) causes thick warty crusts to develop on the skin (NHS Choices, 2014).

CONCLUSION

Skin infections and infestations can be easily and effectively treated. Community nurses caring for patients and their families in a variety of settings will often be the first point of contact when patients present with these conditions. An understanding of the symptoms, assessment and treatments is important to ensure that patients are educated, diagnosed and treated in a timely manner, and before their quality of life and health is too severely affected. **SCT**

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IN BRIEF

- Venous eczema is a progressive, non-infective, inflammatory skin condition that usually occurs on the lower legs.
- Skin changes associated with venous eczema present as pigmented, inflamed, scaly and often itchy skin due to increased venous pressure.
- Early intervention with good skin care regimens can help to prevent the symptoms from worsening.
- If left untreated, venous eczema will develop into venous ulceration.

KEY WORDS:

- Venous eczema
- Manifestations
- Management
- Nursing and medical interventions
- Quality of life
- Care pathway

Manifestations and management of venous eczema

Polly Buchanan

Venous eczema presents as an inflammatory eczematous condition of the lower leg associated with varicose veins and progressive chronic venous insufficiency (CVI), making the affected area of skin prone to complete breakdown resulting in ulceration of the skin (Abbade et al, 2011; Morton and Phillips, 2013).

Community nurses will frequently be required to manage venous eczema and this paper aims to review the pathophysiology, clinical presentation and management strategies. The pathophysiology and progressive nature of chronic venous disease is vast, complex and beyond the scope of this article. Therefore, the focus will remain on skin manifestations of venous eczema which, if managed effectively, can help reduce symptoms such as itch and pain, slow disease progression and improve quality of life (Paul et al, 2011; Sanchez et al, 2013).

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PATHOPHYSIOLOGY OF VENOUS ECZEMA

Morton and Phillips (2013) outline the pathophysiology of venous return in the lower leg as involving the deep, superficial veins and connecting vessels. The venous system functions under high pressure to ensure a one-way flow of deoxygenated blood back to the heart. The calf muscle pump, which is activated during walking, drives the venous blood flow through valves facilitating an emptying and filling sequence within the superficial and deep veins (Morton and Phillips, 2013) (*Figures 1* and *2*).

Remember:

Management of venous eczema involves addressing the underlying condition (Nazarko, 2009; Bianchi, 2013).

Chronic venous insufficiency results from a breakdown in the vascular integrity (such as faulty valves, thrombophlebitis, obstruction) and reduced or failed calf muscle pump action due to prolonged immobility, inability to walk or injury (Champion et

VENOUS ECZEMA — EPIDEMIOLOGY

There remains a dearth of good evidence relating to the epidemiology of venous eczema, although there is growing consensus globally that the underlying cause of venous eczema is chronic vascular disease and venous insufficiency. Beebe-Dimmer et al (2005) undertook a comprehensive epidemiological review of chronic venous insufficiency and varicose veins and reported highest prevalence in western countries — chronic venous insufficiency (CVI) varied from 1–40% in females and 1–17% in males. International evidence estimated that chronic vascular disease (CVD), including varicose veins and post-thrombotic syndrome, affects 2–7% of the adult population (Callum, 1994; Hamdan, 2012).

al, 1998). Interruption and inefficiency of the vascular system can result in a progressive deterioration, which results in skin manifestations such as oedema, venous eczema, skin pigmentation, lipodermatosclerosis, atrophie blanche, varicose veins and leg ulcers (National Institute for Health and Care Excellence [NICE], 2012a; Bianchi, 2013).

Faulty valves in CVI allow for stasis and reflux which causes alteration in blood flow. This results in venous congestion and pooling of blood, which engorges the venous capillaries and veins. The capillary walls stretch and become more permeable, allowing pro-inflammatory substances, proteins, fibrin and red and white blood cells to escape into the subcutaneous tissues (Morton and Phillips, 2013).

Escaping erythrocytes result in haemosiderin pigment being deposited in the dermis, which appears as reddish-purple-brown patches on the skin. The pooling of white blood cells results in free oxygen radicals and proteolytic enzyme release, subsequently causing further damage to the capillaries. The production of inflammatory cytokines (IL-8, mast cells,neutrophils) into the surrounding tissues initiates the eczematous process seen in the skin of the lower extremities.

Added to this inflammatory response, fibrin release and deposition around the capillaries (fibrin cuffs) reduces oxygen diffusion to the skin and inhibits tissue repair leading to fibrosis (hardening of the skin), as seen in lipodermatosclerosis (Morton and Phillips, 2013).

CLINICAL MANIFESTATIONS

The clinical picture and history of venous eczema may vary for each patient, although it typically includes a history of many months and years of ankle and foot oedema, which increases during the day and is relieved if legs are raised. Commonly, patients present with dry, scaly, erythematous skin over the lower leg. Some patients notice purple patches on their skin and/or spider veins (telangiectasia) — an indication of venous insufficiency. Patients can experience discomfort or pain in the dorsum of the feet, ankles and lower legs, which is relieved by walking. The area affected is frequently localised to the medial maleolar region, usually bilateral, and can progress to involve the entire ankle area.

The clinical appearance of lesions in venous eczema also varies. Other than red and brown macules, early venous eczema can also present as an itchy, scaly area of skin, or an erythematous moist confluent rash, which is frequently misdiagnosed as cellulitis (see poster on *pp. 56–57*). Erythema, fluid-filled vesicles, and papules can be present. The area of skin affected can be well-demarcated or diffuse. Reddish brown macules may extend into plaques within the affected area. Patients may also experience profound itch or discomfort, leading to scratching and excoriation. Excoriated skin is vulnerable to secondary infection and can be a portal of entry for pathogenic organisms, which further exacerbate the inflammatory process. Irritant and allergic contact dermatitis is also common, due to the high level of topical applications and dressings applied. Ultimately, the formation of chronic venous leg ulcers can be a consequence of poor skin integrity, venous eczema, trauma and venous insufficiency (De Souza et al, 2013; Kolluri, 2014).

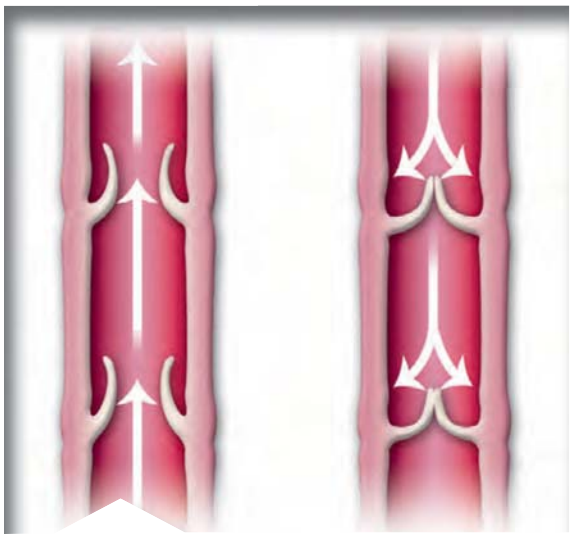

Figure 1. *One-way valves in the veins in the leg drive blood back to the heart.*

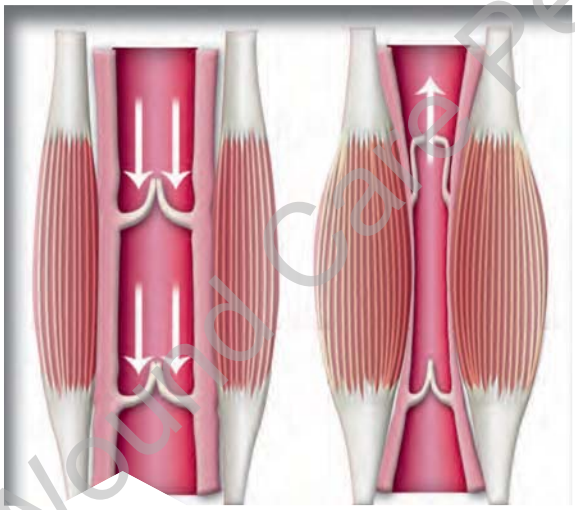

Figure 2. *Calf-muscle pump action.*

A sub-acute venous eczema frequently appears as a plaque or patch of skin with low grade erythema, flaking scale or thickening adherent scale, and increased pigmentary changes (haemosiderin and melanin deposits) may be present. Adherent scale can build up to many millimetres thick, which is prone to cracking and fissuring. The underlying skin is erythematous and prone to harbouring microorganisms. As the months and years pass and venous insufficiency persists, the venous

Top tip:

Infection should be considered if there is spreading eczema, increased itch, erythema, or if the skin starts to weep with yellow crusting. If infection is diagnosed, using an emollient with an antimicrobial agent might be helpful (Wingfield, 2012).

> **Did you know:**
>
> Venous eczema is also known as gravitational eczema, varicose eczema and stasis eczema. It is now regarded as a cutaneous manifestation of vascular insufficiency (Morton and Phillips, 2013).

eczema fails to respond adequately to treatments and deeper skin changes develop. Recurrent episodes and persistent venous insufficiency can progress to the chronic form of venous eczema, lipodermatosclerosis (NICE, 2012a; Morton and Phillips, 2013).

Lipodermatosclerosis characteristically has areas of 'atrophie blanche' due to dermal fibrosis, sclerosis and fat necrosis, as well as permanent skin pigment changes (red, purple, brown and white). The skin tissue becomes very dense and tight leading to restricted movement in the ankle and lower leg. The erythema varies in severity and can be intensely pruritic. Due to changes in skin architecture, the lower leg takes on the classic diagnostic shape of an up-turned champagne bottle and is susceptible to injury. Itch and pain are the most commonly reported symptoms, which result in skin trauma, ulcer formation and failure to heal (Champion et al, 1998; Walsh and Santa Cruz, 2010; NICE, 2012a; Morton and Phillips, 2013).

MANAGEMENT STRATEGIES

Early intervention and treatment of venous eczema is vital, as progression of the condition can lead to profound psychological and physical morbidity, especially if venous insufficiency progresses and ulcer formation occurs (Middleton, 2007). The principles of care for venous eczema are as follows (*Figure 3*):

1. Manage the underlying condition (venous insufficiency)
2. Manage the condition (venous eczema)
3. Manage any complications (itch, pain, infection, contact dermatitis/allergy, psychological morbidity.

Holistic assessment

Patient-centred care demands holistic needs assessment which comprises addressing the physical, cognitive, emotional, spiritual, financial and social aspects of the condition (Nursing and Midwifery Council [NMC], 2007).

As it is a chronic progressive condition, people with venous eczema may have to consider lifestyle changes which support medical and nursing management. Taylor (2012) advocates using a holistic tool for the elderly which addresses the following domains: physical health, mental health and emotional wellbeing, awareness and decision-making, medicines management, communication and sensory functioning, walking and movement, personal care and daily tasks, living arrangements and accommodation, relationships, work, finance and leisure.

In addition to the above domains, as part of holistic care, spiritual and religious needs of patients require assessment — this involves discussing a patient's religious and spiritual beliefs, wishes, expectations and how these impact on his/her life and wellbeing (Ledger, 2005).

Holistic needs assessment is vital to the success of any intervention, as patients' expectations and understanding should be considered. The epidemiology of chronic venous disease and venous eczema indicates patients are likely to be in mid-life or elderly, with increased body mass index (BMI) and reduced mobility. Therefore, nursing assessment needs to address the patient's knowledge and understanding of the condition, social implications, activities of daily living, financial implications and emotional reactions.

The quality of life of patients with CVD can be severely affected due to itch, pain, immobility, social isolation, anxiety and depression (Middleton, 2007; Guanella and Kahn, 2012; Sritharan et al, 2012; Sanchez et al, 2013). The use of a holistic needs assessment and a quality of life assessment tool, such as the Dermatology Life Quality Index (DLQI), will facilitate a patient-centred approach and improve any medical or nursing intervention, maximising patient experiences and outcomes (Findlay and Kahn, 1992).

Clinical assessment of vascular disease is advocated to inform decision-making when managing venous eczema. In the UK, the CEAP (Clinical, Etiological, Anatomical and Pathophysiological signs) scoring system is used for clinical assessment of venous disease and categorises venous eczema as C4a and lipodermatosclerosis as C4b (Eklof et al, 2004).

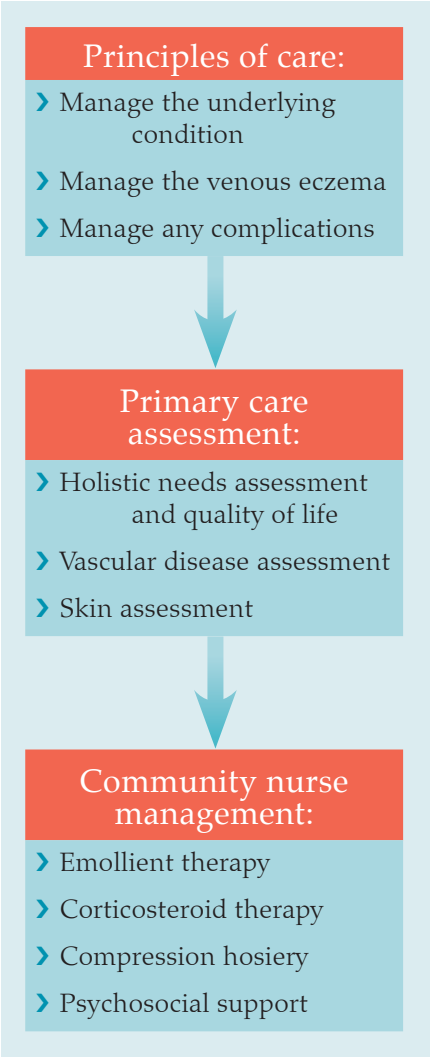

Figure 3. *Venous eczema pathway of care.*

MEDICAL AND NURSING INTERVENTIONS FOR VENOUS ECZEMA

Managing the underlying condition — venous insufficiency

Elastic compression hosiery (and bandaging) has a place in the management of venous eczema to address underlying venous insufficiency (British Association of Dermatologists [BAD], 2014). It is important to exclude the possibility of arterial disease before application of any compression hosiery or bandaging. Pedal pulse and ankle brachial pressure index (ABPI) assessments are strongly advised using physical palpation and Doppler ultrasound (NICE, 2012b). NICE Clinical Knowledge Summaries (CKS) recommendations include the following in relation to venous eczema (NICE, 2012b):

- Compression stockings are useful for CVI, post-thrombotic syndrome, varicose veins, venous eczema, lipodermatosclerosis and venous ulcers
- Primary care prescribing follow the British standard for class of compression
- Class 1–2 elastic compression hosiery (below-knee) are suitable for venous eczema
- Class 2 for lipodermatosclerosis, atrophie blanche and healed leg ulcers
- Class 3 compression hosiery may be required for lipdermatosclerosis if no improvement with class 2 hosiery
- If ankle-brachial pressure index (ABPI) is greater than 0.8, compression stockings are safe to wear.

Graduated compression bandaging is a useful technique for patients who have developed ulcers and/or those who are unable to don compression hosiery. Generally, for patients presenting with venous eczema, classes 1–2 (British classification) compression hosiery is suitable and available on prescription. Below-knee compression hosiery supports venous return within the lower leg through graduated external pressure on the skin (NICE, 2012b).

Graduated pressure hosiery positively influences venous return by exerting higher pressure over the ankle region, compared to that exerted over the calf region of the leg. This external pressure reduces blood pooling and reflux in the veins and capillaries, encourages one–way flow of blood, as well as reducing foot and ankle oedema. Gradually, with regular use, compression hosiery can reduce the symptoms of chronic venous disease and, thus, venous eczema as the integrity of dermal capillaries and veins improve.

Fitting elasticated compression hosiery

It is advisable to measure the patient's ankle and calf circumferences to ensure a correctly fitting garment, following specific manufacturer's guidelines. Education and support is also required to ensure patient understanding and skill in donning and removing hosiery each day. Patient concordance in wearing hosiery is variable. Some patients feel symptomatic relief, others experience difficulties (unsightly cosmetically, difficult to apply, uncomfortable to wear), so consistent support and advice is required. Aids and tips to enhance concordance include:

- Include the patient in decision-making regarding hosiery, i.e. choice of colour, texture, open or closed toe
- Agree shorter wearing times (wear when walking, standing and sitting with legs dependent)
- Remove hosiery every day, usually before bedtime. Don hosiery first thing in the morning
- Use tips/aids for application — rubber gloves, talc, plastic bin liner, application gadgets.

Poorly-fitting hosiery can lead to further skin injury, skin abrasions and skin necrosis. Particular vigilance should be undertaken with high risk patients, i.e. those who are immunocompromised, with diabetes mellitus and/or peripheral vascular disease. In such cases, self-examination of the feet, toes and skin should be undertaken daily.

Practice point

Management of venous eczema requires early intervention addressing the underlying venous condition, skin manifestations of venous eczema and any associated complications.

In addition to wearing compression hosiery, patients can be encouraged to consider other lifestyle modifications. Chronic venous disease symptoms (pain and oedema) are exacerbated at rest, and when standing or sitting with lower legs placed in a dependent position. This is due to the gravitational effect which increases oedema and venous pooling and reflux. Gentle increase in walking activities can greatly improve symptoms, as the calf muscle pump efficiency is enhanced. Legs should be raised during restful periods during the day and evening. Raising the foot of the bed will aid venous return overnight when hosiery is removed.

Weight loss may also be a factor to consider and discuss with patients, as increasing BMI is associated with increasing severity of disease (Brown and Rossi, 2013; Morton and Phillips, 2013). Referral to a dietician may be warranted to support the overall management strategy.

Managing the condition: topical therapies for venous eczema

Good skin examination is essential to guide decision-making regarding the most appropriate topical treatments. As a general rule of thumb, the medical management of eczema depends on the clinical presentation:

- Acute wet eczema requires drying agents

- Sub-acute and chronic dry eczema require emollients
- Inflamed eczema requires topical corticosteroids
- Infected eczema requires topical/systemic antibiotics (Primary Care Dermatology Society [PCDS], 2014).

Acute, wet, weeping inflamed varicose eczema requires the lower leg to be soaked for 20 minutes in a solution of potassium permanganate 1:10,000 solution (British National Formulary [BNF], 2012). As a mild antiseptic and drying agent, potassium permanganate effectively treats wet, eczematous skin conditions. Treatment regimen should include:

- Daily soaks can be continued until dried exudate, crusts and serous fluid are no longer evident
- Cleansing of the skin and moisturisation can be achieved using an oil-in-water-based cream or lotion
- Moisturising the skin can continue at least twice-daily. Thereafter, progress to a greasier-based emollient as the skin becomes more dry and scaly
- Any residual inflamed skin can be treated with a mild-to-moderate topical corticosteroid
- Due to the vulnerability of the skin in venous eczema, topical corticosteroids should be used intermittently, only when inflammatory lesions are present. Potent and very potent topical corticosteroids are usually avoided with venous eczema, as there is a potential for further thinning of the skin, which will be prone to trauma and ulceration.

Sub-acute and chronic venous eczema, including lipodermatosclerosis, respond well to daily intensive emollient therapy. Emollient soaks, moisturisation and intermittent mild-to-moderately potent topical corticosteroids (only on inflammatory lesions) effectively soothe itch and protect the skin. Potent topical steroids can be considered under specialist medical supervision for lipodermatosclerosis (NICE, 2012a).

Medicated paste bandages have a place in the management of chronic venous eczema where occlusion is indicated and can be used under compression hosiery, if venous insufficiency exists. Ichthammol paste bandages and zinc paste bandages provide a moist skin-healing environment and have antipruritic and anti-inflammatory properties (British National Formulary [BNF], 2015).

Emollient wet wrap technique is also useful in removing adherent scale of venous eczema without damaging the skin. The key is to use a technique that does not traumatise the underlying skin, i.e. emollients and very gentle debridement when scale and hyperkeratosis are soft and moist. Monofilament debridement pads may facilitate this.

Managing complications of venous eczema

Itch and pain are the most commonly reported symptoms of venous eczema. Itch results in scratching, which can traumatise the skin further. Complications of this are:

- Recurrent secondary infection
- Ulceration
- Contact dermatitis
- Allergic dermatitis
- Psychological morbidity
- Poor quality of life.

Management of itch is as important as management of pain and eczema (Paul et al, 2011). Emollients can effectively reduce itch, so their importance should not be underestimated. Antihistamines have little effect in relieving itch (Apfelbacher et al, 2013). Psychosocial interventions for itch management are also useful, such as habit reversal, distraction and behaviour modification (patting the skin rather than scratching). Pain can be relieved by oral analgesics.

Secondary infection will require topical or systemic antibiotic therapy. A skin swab should be obtained and sent to microbiology for culture and sensitivity, as long-term systemic antibiotic therapy is discouraged due to the increasing incidence of resistance (O'Meara et al, 2014).

Patients with venous eczema are prone to developing contact or allergic dermatitis due to hypersensitivity to a substance applied to the skin, either in topical medicaments and/or dressings. Acute flares of eczema and failure to respond to treatment are indications to refer the patient for patch testing, which will help to ascertain any sensitivities.

There is little reliable evidence relating venous eczema with psychological morbidity. However, there are published reports of depression and poor quality of life associated with chronic venous disease, of which venous eczema may be a component (Sanchez et al, 2013). Assessment of quality of life and mood is therefore advised using an appropriate tool, e.g. Dermatology Life Quality Index (DLQI), Patient Health Questionnaire (PHQ-9), Hospital Anxiety and Depression Scale (HAD Scale), Generalised Anxiety Disorder Assessment (GAD-7) tools. Referral to an appropriate healthcare professional (GP, dermatologist, psychologist) will be necessary to address psychological morbidity.

Holistic needs assessment including quality of life is an important aspect of care provision for all patients with skin conditions (Green, 2012; All Party Parliamentary Group on Skin [APPGS], 2013). Patients living with venous eczema require such support and guidance to enhance self-efficacy skills and quality of life.

Increasing prevalence of venous eczema occurs with women, increasing age and obesity in adults with superficial venous disease (Brown and Rossi, 2013).

CONCLUSION

Venous eczema is a progressive inflammatory skin condition, the aetiology of which is strongly associated with chronic venous disease and insufficiency. Venous eczema forms part of a spectrum of skin manifestations (haemosiderin patches, telegiectasia, lipodermatosclerosis, atrophie blanche and venous ulceration), which can progress to complicated disease management, high morbidity and low quality of life.

A holistic nursing approach is advocated to address the physical, psychological, social and financial aspects of the condition. Thorough assessment of venous disease and skin will inform decision-making regarding interventions.

Referral for specialist opinion (dermatology and vascular surgery) is indicated in the following situations:

- Uncertain diagnosis
- Failure to respond to treatment
- Suspicion of contact dermatitis or allergic hypersensitivity reaction
- Progression of vascular insufficiency or chronic vascular disease
- Deterioration of skin condition, lipodermatosclerosis, ulceration
- Assessment and review of co-morbidities in at-risk patients
- Evidence of psychological morbidity.

Community nurses have an important role to play in the management of venous eczema. Understanding the nature of the disease and early medical/nursing intervention can positively influence patient experiences and outcomes. **SCT**

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Cellulitis vs venous eczema

About cellulitis

› Cellulitis is a bacterial infection that spreads through the dermis and subcutaneous tissue[1]. The most common area for this to occur is the lower limbs, as a result of skin damage from a leg ulcer or trauma[2]. Early identification is vital to avoid a medical emergency.

About venous eczema

› Venous eczema is a non-infective venous disease that affects the lower legs. It occurs when there is increased venous pressure due to damaged valves as a result of trauma, surgery or lymphovenous disease. It is part of a continuum of venous disease[3].

Prevent misdiagnosis

Venous eczema is often misdiagnosed as cellulitis, resulting in unnecessary antibiotic therapy and inpatient stays, as well as the patient's true condition being neglected.

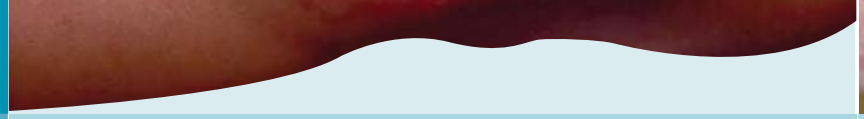
› Correct differential diagnosis can save a patient unnecessary treatment, ensure appropriate management and prevent acute hospital admission[4]. This, in turn, improves patient quality of life, reduces nursing time and offers cost-savings for the NHS provider[5].

Differential diagnosis

› All healthcare professionals should base their diagnosis on comprehensive holistic assessment and physical examination, the results of which may be confirmed by further investigations.

Cellulitis

Venous eczema

		
Presentation	› Unilateral	› Often bilateral
Systemic signs and symptoms	› Pyrexia (high temperature) › Malaise/flu-like symptoms › Raised erythrocyte sedimentation rate (ESR)/ C-reactive protein (CRP)/white cell count	› Apyrexia › No malaise › Normal blood profile
Local signs and symptoms	› Rapid development › Erythema (the edge of the redness will be clearly defined and may extend quickly) › Swelling (oedema) › Heat › Pain/tenderness (to the extent that the patient may not be able to weight-bear on the affected limb) › Enlarged lymph glands	› Erythema › Scaling › Itch › Exudate, if ulcerated areas are present
Diagnosis	› Cellulitis	› Varicose eczema
Treatment	› Antibiotic therapy (refer to local and national policy) › Remove compression in acute phase › Prevent recurrence and manage underlying venous insufficiency or oedema with cohesive inelastic compression bandaging and European Classification compression hosiery[4]	› Topical corticosteroids (refer to local and national policy) › Use a monofilament debridement pad to remove sloughy tissue and hyperkeratosis[6], and for routine skin care to help prevent recurrence › Manage underlying venous insufficiency or oedema with cohesive inelastic compression bandaging and European Classification compression hosiery

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IN BRIEF

- Twenty percent of children in the UK will have some experience of eczema. It remains the most common skin condition in children of primary school age or under.
- Eczema is one of a group of related, inherited conditions that also includes asthma, food allergy and hay fever.
- It can leave the skin dry, itchy, red, broken and sore, and, if untreated, can lead to significant discomfort and quality-of-life issues.

KEY WORDS:

- Eczema
- Children
- Skin damage
- Steroids
- Emollient therapy
- Skin protection

How do current childhood eczema standards influence practice?

Amanda Roberts

Eczema (also called atopic dermatitis or atopic eczema) is one of a group of related, inherited conditions that also includes asthma, food allergy and hay fever. It makes the skin dry, itchy, red, broken and sore (*Figure 1*) and there are clear diagnostic criteria (National Institute for Health and Care Excellence [NICE], 2007) (*Table 1*).

Twenty percent of children in the UK will have some experience of eczema, and it remains the most common skin condition in children of primary school age or under. Sixty percent of these children will find that their eczema improves over time (Hoare et al, 2000).

BACKGROUND

In writing this article, the author who has eczema, reflects on the quality standard for childhood eczema (NICE, 2013).

Amanda Roberts has eczema herself and is involved with the Nottingham Support Group for Carers of Children with Eczema (NSGCCE)

Author's experience

Unfortunately, the author was a child who did not 'grow-out' of eczema (or asthma). In due course, she had children (who both have eczema) and subsequently became involved with the Nottingham Support Group for Carers of Children with Eczema (NSGCCE), an organisation that provides information for carers of children with eczema. The NSGCCE is mainly web-based and run jointly by a team of healthcare professionals from the dermatology department at Nottingham University Hospitals NHS Trust and carers of children with eczema.

Credit: Jambula at en.wikipedia

Figure 1. *Eczema on a patient's arms and hands.*

Guidelines

In September 2013, NICE published standards for atopic eczema in children (NICE, 2013) (which were themselves based on the groundwork done in the previous 2007 guidelines).

These latest 2013 quality standards distil the 86 recommendations from the earlier guideline into a much easier-to-digest seven statements. As the only patient representative on both the NICE guideline and quality standard for childhood eczema, the author reflects on the details behind the seven statements and the impact they can have on childhood eczema. Each of the quality statements below is accompanied by some background; specific recommendations and, where applicable, an illustrative comment from someone in the NSGCCE community.

QUALITY STANDARD STATEMENT 1

Children with atopic eczema should be offered, at diagnosis, an assessment that includes recording their detailed clinical and treatment histories and identification of potential trigger factors.

Generally, eczema is diagnosed and

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References: 1. Whitefield M. Clinical evaluation of Doublebase. A multi-centre GP study of 78 patients with dry skin conditions. (Data on File). 2. Wynne A. *et al.* An effective, cosmetically acceptable, novel hydro-gel emollient for the management of dry skin conditions. Journal of Dermatological Treatment No 2 June 2002; 13: 61-66. 3. Aslam A. Children's preference in selecting an emollient of their choice. British Journal of Dermatology 2009; 161 (Suppl. 1):116. 4. Gallagher J., Rosher P., Sykes K., Walker J. & Hart V. Are all emollients equally effective in hydrating dry skin? A single centre, double-blind, bi-lateral comparison of two commercially available emollient products in the UK. Poster presented at the 21st EADV Congress in September 2012, Prague. 5. Gallagher J., Rosher P., Walker J. & Hart V.A. An *in vivo* comparison of two commercially available topical emollients in the UK, DELP gel and DIPC cream. Poster presented at the 70th AAD Annual Meeting, March 2012, San Diego, USA.

Doublebase™ Gel Isopropyl myristate 15% w/w, liquid paraffin 15% w/w. **Uses:** Highly moisturising and protective hydrating gel for dry skin conditions. **Directions:** Adults, children and the elderly: Apply direct to dry skin as often as required. **Doublebase Dayleve™ Gel** Isopropyl myristate 15% w/w, liquid paraffin 15% w/w. **Uses:** Long lasting, highly moisturising and protective hydrating gel for dry skin conditions. **Directions:** Adults, children and the elderly: Apply direct to dry skin morning and night, or more often if necessary. **Contra-indications, warnings, side effects etc:** Please refer to SPC for full details before prescribing. Do not use if sensitive to any of the ingredients. In the rare event of a reaction stop treatment. **Package quantities, NHS prices and MA numbers:**
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Doublebase Dayleve Gel: 100g tube £2.65, 500g pump dispenser £6.29, PL00173/0199.

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TOPICAL INNOVATION

managed in primary care. A family history of eczema or any of the other related, inherited conditions is a potential, but not crucial, aid to this diagnosis (see *Table 1* for full diagnostic criteria). The age of onset can be an indicator of prognosis. For instance, it has been postulated that there is more likelihood of the eczema being severe and longer-lasting if the onset is under two years, although this is certainly not always the case (Illi et al, 2004).

Identification of triggers is essential. The list of potential triggers is long, but includes:

- Soap, including soap powder residue on laundry
- Food
- Pollen
- Hard water
- Irritant-clothing materials
- Heat
- Sweat
- Stress.

The mechanism of these triggers varies from allergic, contact or environmental. As a child gets older, the number of triggers that may cause an eczema flare is likely to increase. Identifying triggers can be quite difficult because of the episodic nature of eczema and patients and parents often look for patterns of cause and effect, even when there are none. Below, Lisa, talks about the potential impact of triggers on her son's eczema (NSGCCE, 2014a):

> *I have seen countless GPs, dermatologists and have had a private appointment with a paediatric allergy specialist. Everyone seems to try and treat his symptoms without trying to work out what the triggers are. It seems crazy to me to keep throwing medicine at him when if we could eliminate at least some of the triggers then surely he wouldn't have the symptoms in the first place?*

Avoidance of triggers is currently best practice for eczema management, but inducing tolerance is a promising goal for future therapy aimed at reducing allergen triggers (Flohr and Mann, 2014a).

Misconceptions

There are some commonly held misconceptions about lifestyle changes that might help eczema. For example, although hard water can make eczema worse, water softeners do not help because of the chemicals that they contain (Centre of Evidence-based Dermatology, 2014). Biological laundry detergents have no better or worse effect on eczema than non-biological products (NHS Choices, 2008) — simply using an extra rinse cycle with no laundry conditioner is a more productive option. Surfactants in detergent capsules do, however, make eczema worse (Ng, 2013).

QUALITY STANDARD STATEMENT 2

Children with atopic eczema should be offered treatment based on recorded eczema severity using the 'stepped' care plan, supported by education.

Eczema severity dictates the most appropriate treatment, but crucially different levels of severity can develop in different areas of the body. Therefore, different treatment regimens may be needed. *Table 2* lists the definitions of eczema severity.

Generally, the established armoury of moisturisers (emollients) and topical steroid creams serves this patient group reasonably well. Emollients underpin every treatment regimen and have been shown to be steroid-sparing (reducing the amount of steroids required) (Grimalt et al, 2007). See *Table 3* for the stepped treatment plan.

When both emollients and topical steroids are required, clinicians should provide carers with sufficient information to help them distinguish between the two treatments, as well as the way each should be applied — it is very important that carers do not confuse the two. Emollients can be applied as frequently and in as large quantities as required — potentially many times a day for an indefinite period. Topical steroids, on the other hand, have potential side-effects like skin thinning, changes in skin colour and hair thickening (NHS Choices, 2015a). To minimise these side-effects while enabling the benefits of steroids, they need to be used as directed by the prescriber (typically once a day, for a limited period, and in specified amounts).

Parents' or children's beliefs may impact on the way they regard their treatment. There are common misconceptions about the safety of topical steroids due to past mismanagement of these creams, which led to widely publicised side-effects (see above). However, proper use and regular monitoring minimises the risks of topical steroid application. This said, under-application of topical steroids in childhood eczema represents a significant problem.

The four rules for using steroid creams are (NSGCCE, 2014b):

- Always use these creams/ointments along with a regular emollient, but ideally allow a gap of 30 minutes before applying the emollient, otherwise the emollient could dilute

Table 1: Diagnostic criteria for eczema (NICE, 2007)

Atopic eczema should be diagnosed when a child has an itchy skin condition plus three or more of the following:
Visible flexural dermatitis involving the skin creases, such as the bends of the elbows or behind the knees (or visible dermatitis on the cheeks and/or extensor areas in children aged 18 months or under)
Personal history of flexural dermatitis (or dermatitis on the cheeks and/or extensor areas in children aged 18 months or under)
Personal history of dry skin in the last 12 months
Personal history of asthma or allergic rhinitis (or history of atopic disease in a first-degree relative of children aged under four years)
Healthcare professionals should be aware that in Asian, black Caribbean and black African children, atopic eczema can affect the extensor surfaces rather than the flexures, and discoid (circular) or follicular (around hair follicles) patterns may be more common

the effect of the steroid. If used sensibly, steroid creams/ointments do not cause side-effects to the skin, whereas untreated eczema can have serious consequences
- Use the weakest possible cream that will control the child's eczema well
- Use ointments rather than creams if possible
- Use the steroid preparations for short periods of 5–7 days, plus a separate emollient. When the eczema flare has settled, this should be followed by a 'holiday period' of emollients only. This can be repeated for further flares.

Education

Patient education can lead to empowerment and this is as important in eczema management as it is for any chronic disease. As illustrated by the quote from Andrew below (NSGCCE, 2014a), many patients need further information about eczema:

> *What do I know about eczema? Well, not an awful lot to be fair… I know how to live with it. I know some of the things that trigger my eczema and I am 100% confident that I could still dream up ways to scratch even if you took away my hands, arms and toes!*

The information that should be supplied at every consultation includes how to recognise the symptoms and signs of bacterial infection, as well as how to recognise and manage flares of atopic eczema (according to the stepped-care plan) (NICE, 2013).

Table 2: Severity as defined by the NICE (2013) childhood eczema guideline

Clear: normal skin, no evidence of active atopic eczema
Mild: areas of dry skin, infrequent itching (with or without small areas of redness)
Moderate: areas of dry skin, frequent itching, redness (with or without excoriation and localised skin thickening)
Severe: widespread areas of dry skin, incessant itching, redness (with or without excoriation, extensive skin thickening, bleeding, oozing, cracking and alteration of pigmentation)

Clinicians should also spend time educating children with atopic eczema (and their parents or carers) about the condition and its treatment. They should provide information in verbal and written forms, with practical demonstrations, covering (NICE, 2013):
- How much of the treatment(s) to use
- How to apply and how often to apply prescribed treatments, including emollients, steroids, calcineurin inhibitors and medicated dressings (bandages)
- When and how to step treatment up or down
- How to treat infected atopic eczema.

This should be reinforced at every consultation, addressing factors that affect adherence such as (Lawton, 2014):
- Topical preparations that sting, are too greasy, or too visible
- The timings of the treatment being inappropriate for the patient's schedule (i.e. during school lessons)
- Children may spend time with different family members without always taking their treatment with them.

Table 3: The stepped treatment plan from the NICE childhood eczema standards (2013)

Mild atopic eczema	Moderate atopic eczema	Severe atopic eczema
Emollients	Emollients	Emollients
Mild-potency topical corticosteroids	Moderate-potency topical corticosteroids	Potent topical corticosteroids
	Topical calcineurin inhibitors	Topical calcineurin inhibitors
	Bandages	Bandages
		Phototherapy
		Systemic therapy

There is plenty of information on the internet which will help carers and/or a child to understand and better manage eczema. Of course, along with any accurate information, there will also be quite a lot of misinformation, so it is better to direct the carer to an appropriate website rather than encourage them to browse (see 'resources' box below).

QUALITY STANDARD STATEMENT 3

Children with atopic eczema should have their (and their families') psychological wellbeing and quality of life discussed and recorded at each eczema consultation.

Childhood eczema impacts on the whole family and eczema has a greater impact on quality of life than any other chronic disease apart from cerebral palsy (Beattie and Lewis-Jones, 2006). The guideline notes that there may not always be a direct relationship between the severity of eczema and the impact it has on quality of life. Also, the child can have sore and itchy skin, which will impact on everyday activities such as disrupting sleep (which in turn may affect the carer's sleep). Lack of sleep has the obvious impact on children's normal functioning but may also impact on their physical development, for instance hampering growth (Vgontzas et al, 1999).

Skin is a visible organ and the child may be self-conscious about the eczema, others may react inappropriately to it and may even mistakenly think that it is contagious. In the example below, Priya discusses the effects eczema had on her quality of life during her teenage years:

> *When I was about 14 the eczema became uncontrollable. It was a really distressing experience, very painful and traumatic. There were*

days when I would want to just hide, not get out of bed and bury myself from the world.

In these circumstances, many well-meaning people may offer the carer potentially inappropriate advice (such as applying talcum powder), which can be very unsettling. Treatment regimens can also be time-consuming, exhausting and isolating. As with any other condition that has a genetic component, there may be inappropriate feelings of guilt on behalf of carers at having 'passed the condition on' to their child.

Eczema is often described as 'psychosomatic'. This term can be misinterpreted by patients as meaning their condition is 'all in the mind' and that they are somehow making it up. However, there is often a psychological component to the condition, such as the way it can be exacerbated by stress (NHS Choices, 2015b), which is out of the patient's control.

In the author's experience, there are some interventions which may be appropriate for specific psychological aspects of eczema. For instance, if stress is a trigger, techniques to minimise its impact may be useful, such as reassurance and providing opportunities for exercise. Habit reversal and distraction techniques also have their place and are aimed at reducing scratching.

Resources

For further information, try these websites:

- The British Association of Dermatologists: www.bad.org.uk
- British Dermatological Nursing Group (BDNG): www.bdng.org.uk
- New Zealand Dermatology Society: http://dermnetnz.org
- The International Study of Asthma and Allergies in Childhood (ISAAC): http://isaac.auckland.ac.nz
- National Eczema Society: www.eczema.org
- Royal College of Paediatrics and Child Health (RCPCH) Eczema pathway: www.rcpch.ac.uk/system/files

QUALITY STANDARD STATEMENT 4

Children with atopic eczema should be prescribed sufficient quantities (250–500g weekly) from a choice of unperfumed emollients for daily use.

When choosing an emollient, it is essential to ensure that it is suited to the child's skin or lifestyle. In addition, different types of emollient may be required for different parts of the body or at different times of year. Allowing a child (where appropriate) to choose from a selection of emollients, which should be used as frequently as necessary, has been shown to improve adherence (Cork et al, 2006). But equally, it may take several tries before the most satisfactory emollient for the child is found.

Emollient pump dispensers help to minimise contamination. If the chosen emollient is only available in pots, avoid introducing sources of infection into the emollient by using a clean spoon rather than fingers to scoop out the product. The lid of the pot should be replaced as soon as used for the same reason

Soap damages the outer layer of any skin (Cork et al, 2006). However, in those with eczema this damage is magnified and the chosen emollient can and should be used as a soap substitute. Aqueous cream is a potential irritant and should not be used as an emollient, whether leave-on or to replace soap (Medicines and Healthcare Products Regulatory Agency [MHRA], 2013). *Table 4* gives some practical tips on emollient use for carers.

QUALITY STANDARD STATEMENT 5

Children with uncontrolled or unresponsive atopic eczema, including recurring infections, or psychosocial problems related to the atopic eczema, should be referred for specialist dermatological advice.

Practice point

The 'itch-scratch cycle' refers to the situation where itching results in scratching, but scratching itself can subsequently aggravate the itch. Also, when a child has lived with itchy eczema for a long time, the scratching can become a habit. Distraction can help to interrupt these cycles.

Often the first option for the clinician presented with unresponsive eczema is to step up the potency of the topical steroid, however each treatment change needs time to demonstrate efficacy. In the author's experience, expecting families to undergo several of these trial periods will result in potential disengagement with the treatment process.

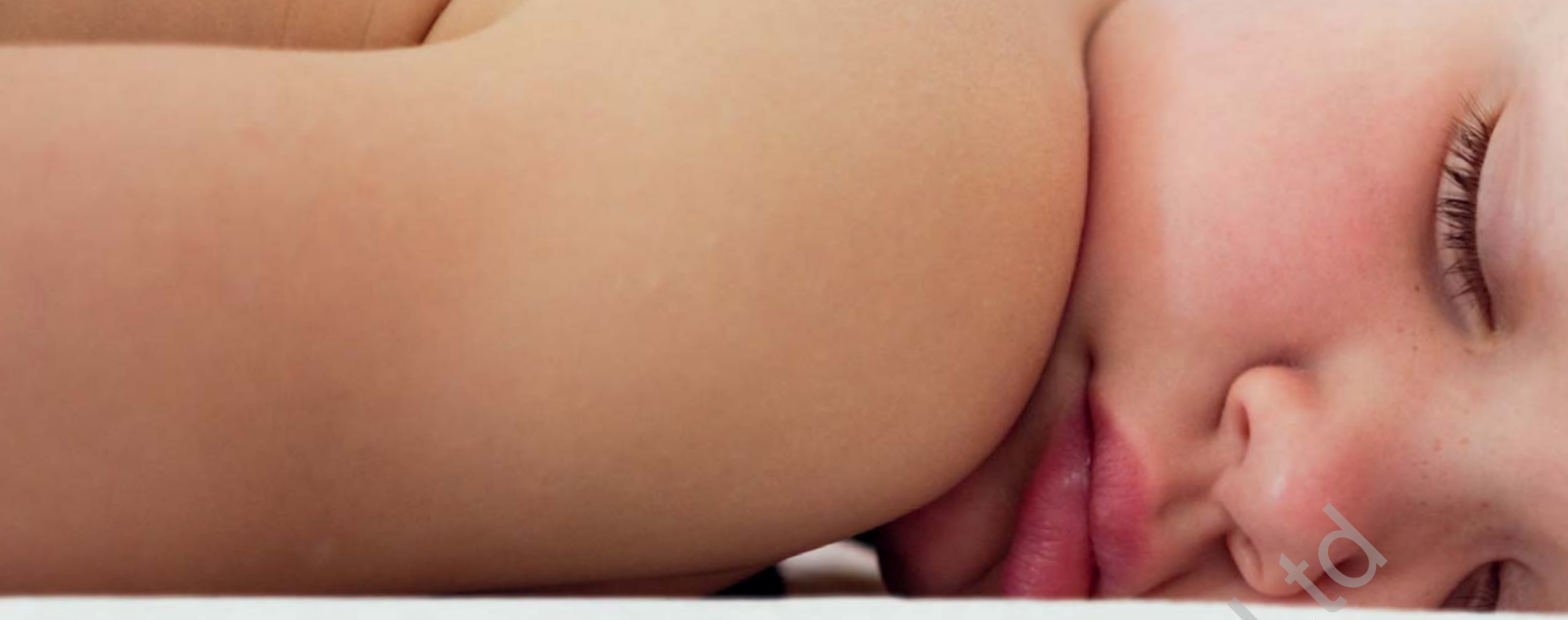
As well as the patient's eczema being unresponsive to treatment, there are other factors which would drive a medication review such as the need to reduce the opportunities for atopic march (the theory that eczema is often the first atopic condition to manifest itself with the potential subsequent development of asthma) (Allergy UK, 2014); and minimising the legacy of damaged skin (in the author's experience, skin that has endured chronic eczema seldom returns to 'normal', remaining slightly inflamed and more likely to respond to an even greater array of triggers). For referral criteria see *Table 5*.

Additional treatment options for children who have been referred to specialists include:

- Wet wraps
- Topical calcineurin inhibitors
- Phototherapy
- Systemic medications.

QUALITY STANDARD STATEMENT 6

Infants and young children with moderate or severe atopic eczema that



More than just a bath oil

Washing shouldn't have to be bad for eczema

NICE guidance is clear that **emollients should be used for washing and bathing**, as well as moisturising, because soaps and detergents can damage the skin barrier and exacerbate symptoms.[1] All children require an essential package of emollient therapy including a topical emollient and a wash product.[1]

Not only do Oilatum wash products provide an **active emollient benefit**, rehydrating the stratum corneum and helping to restore the skin barrier, they **also cleanse skin effectively, avoiding the need for soap.**

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Indications Contact dermatitis, atopic eczema, senile pruritus, ichthyosis and related dry skin conditions. **Dosage and administration** Use as often as necessary. Apply to wet skin or add to water. Adult bath: 1-3 capfuls in an 8 inch bath of water, soak for 10-20 minutes, pat dry. Infant bath: ½-2 capfuls in a basin of water, apply gently over entire body with a sponge, pat dry. **Precautions** Hypersensitivity to any ingredient. Stop use if rash or irritation develops. **Side effects** See SPC for full details. Application site reactions including irritation, erythema, rash, pruritus, dermatitis. **Legal category** GSL. **Presentation and NHS cost** 150 ml £2.82, 250 ml £3.25, 300 ml £5.10, 600 ml £5.89. PL 00079/0708. **PL holder** Stiefel, 980 Great West Road, Brentford, Middlesex, TW8 9GS. **Date of revision** February 2014.

Oilatum® Shower Gel Fragrance-Free (light liquid paraffin 70%)

Indications Contact dermatitis, atopic dermatitis, senile pruritus, ichthyosis and related dry skin conditions. **Dosage and administration** *All ages*: Apply to wet skin, normally as a shower gel. Use as frequently as necessary. **Precautions** Hypersensitivity to any ingredient. Not for use on greasy skin. **Side effects** See SPC for full details. Application site reactions including irritation, erythema, rash, pruritus, dermatitis. **Legal category** GSL. **Presentation and NHS cost** 150 g £5.15. PL 00079/0704. **PL holder** Stiefel, 980 Great West Road, Brentford, Middlesex, TW8 9GS. **Date of revision** March 2014.

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Stiefel, on 0800 917 9511.

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Date of preparation: May 2014. CHGBI/CHOIL/0016/14j.

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Table 4: Practical tips for emollient use for carers (NSGCCE, 2014c)

Emollients are an important part of managing the dry skin associated with atopic eczema
Emollients will help to protect the skin from outside irritants such as cold weather, water and detergents
If a child does not like a particular emollient or it irritates the skin, a different one should be tried
Nurses can demonstrate how to put the emollient on
If any other treatment is being put on the skin at the same time of day, it does not matter which is applied first. At least 30 minutes should be left between applying emollients and other treatments
Always keep plenty of emollients. Get a refill from the doctor or chemist when a tub is quarter-full
Emollients need to be used regularly throughout the day and not only when the skin looks bad
As with other creams, apply in the direction of the hair as it lies on the skin. This prevents folliculitis (blocked and inflamed hair follicles)
When using a bath oil or shower product, use a bath mat to prevent slipping
Aqueous cream should not be used as a leave-on emollient or as a wash product

has not been controlled by optimal treatment should be referred for specialist investigation to identify possible food and other allergies.

Identifying triggers can be very useful for those with moderate-to-severe eczema (a list of triggers was given in Statement 1.) However, managing eczema simply by avoiding triggers is only part of the story and certain triggers cannot be ignored. For instance, any suspicion of cows' milk allergy must be explored in babies under six months who have severe eczema that fails to respond to treatment (NHS Choices, 2014). In these cases, a 4–8-week period of replacing formula milk with a low allergenic 'hydrolysed' formula (such as Nutramigen® [Mead Johnson Nutrition]; or Neocate® [Nutricia]) can be prescribed.

Apart from cows' milk, the most common foodstuffs which may worsen eczema through a delayed allergic reaction are eggs or wheat (Motala, 2015). There are other types of food, e.g. tomatoes, which can have a contact irritant effect on eczema, often seen as a flare around the mouth in weaned toddlers who are 'teething' or 'drooling' a lot.

Some carers — suspecting that food is a significant component in children's eczema — may attempt an exclusion diet without expert input. Since a well-balanced diet is critical for a growing child, they should be encouraged to discuss this before taking action and referred for dietetic advice if appropriate.

QUALITY STANDARD STATEMENT 7

Children with atopic eczema who have suspected eczema herpeticum should receive immediate treatment with systemic aciclovir and be referred for same-day specialist dermatological advice.

Eczema herpeticum (British Association of Dermatologists [BAD], 2014) is an infection usually caused by the herpes simplex virus and manifests through the widespread development of cold sores. It can be potentially fatal if untreated. Eczema is an umbrella term for a range of skin conditions and some genetic variants have a greater susceptibility to eczema herpeticum (Healio, 2014).

Infection

Eczematous skin is more susceptible to infection because of breaks in the skin. Infections can be viral (like eczema herpeticum), fungal or bacterial.

> **Did you know:**
>
> Eczema may cause food allergies as well as sometimes being driven by them (Lo, 2014).

At every consultation, patients should be educated in how to recognise the signs and symptoms of bacterial infections (*staphylococcus* and/or *streptococcus)*, which commonly cause eczema to flare, including:

- 'Weeping' or leakage of fluid
- Pustules
- Crusts
- Where atopic eczema fails to respond to therapy
- Rapidly worsening atopic eczema
- Fever
- Discomfort, such as pain, swelling or 'heat'.

Clinicians should be aware of how to access appropriate treatment when a child's atopic eczema does become infected. However, it is usually only when these infections become severe or frequent that a referral might be required.

AREAS NOT COVERED BY THE QUALITY STANDARDS

Preventing eczema was not considered to be within the scope of

Table 5: Referral criteria from the NICE (2007) childhood eczema guideline

Referral is recommended for children with atopic eczema if:
The diagnosis is, or has become, uncertain
Management has not controlled the atopic eczema satisfactorily based on a subjective assessment by the child, parent or carer (for example, the child is having 1–2 weeks of flares per month, or is reacting adversely to many emollients)
Atopic eczema on the face has not responded to appropriate treatment
The child or parent/carer may benefit from specialist advice on treatment application (for example, bandaging techniques)
Contact allergic dermatitis is suspected (for example, persistent atopic eczema or facial, eyelid or hand atopic eczema)
The atopic eczema is giving rise to significant social or psychological problems for the child or parent/carer (for example, sleep disturbance, poor school attendance)
Atopic eczema is associated with severe and recurrent infections, especially deep abscesses or pneumonia

the NICE guidelines (NICE, 2007; 2013), however, it has significant implications for future provision. As eczema has a genetic component, in families with a history of atopy (asthma, eczema, hay fever or food allergy) there are factors that might minimise the chances of a child developing eczema or reduce the severity of the condition.

During the later stages of pregnancy, as well as in the early stages of infancy, pre- and probiotics may reduce the chances of developing eczema (BestHealth, 2015). Similarly, intensive emollient therapy in high-risk babies seems to have some preventive potential (Simpson et al, 2014). Disappointingly, however, avoiding house dust and maternal dietary manipulation is not thought to help (Flohr and Mann, 2014a).

There is no consistent evidence that prolonged exclusive breastfeeding influences eczema risk (Flohr et al, 2014b). Solids should not be introduced until after six months, and then only gradually, starting with foodstuffs which are less likely to cause allergies (NSGCCE, 2014d).

CONCLUSION

Eczema is a multifactorial and episodic condition which does not present clinicians with an easy treatment path. Childhood eczema impacts on the whole family. However, the seven statements contained in the latest NICE (2013) standards provide an evidence-based pathway for clinicians and families to improve life for those children with, or at risk of eczema. **SCT**

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IN BRIEF

- Psoriasis is a long-term condition, affecting approximately 2% of the UK population.
- Clinicians need to be aware of the importance of assessment (both physical and psychological) and talking to patients about side-effects and mode of action of treatments.
- Primary care nurses are well-placed to ensure that patients have optimum treatment regimens.
- Emollients should always be included as part of the care plan.

KEY WORDS:

- Psoriasis
- Assessment
- Emollient therapy
- Skin care guidance
- Quality of life
- Care plans

A strategy for psoriasis management in the community setting

Sara Burr, Rebecca Penzer

Psoriasis is a chronic inflammatory skin condition, which can have a debilitating impact. It results in patients developing red, flaking patches of skin with silvery scales, which are often itchy or sore (NHS Choices, 2014; *Figure 1*). Although it can occur anywhere on the body, it is most often located on the scalp, elbows, knees and lower back.

Patients can have times when they are symptom-free, have mild symptoms, or are severely affected.

In October 2012, the National Institute for Health and Care Excellence (NICE) published psoriasis guidelines to provide clear information for clinicians, to enable effective decisions around interventions for people with psoriasis. The whole document is long and detailed (760 pages without appendices!). Of more use are the summarised pathways that provide practical guidance (http://pathways.nice.org.uk/pathways/psoriasis). This article extracts the information that is most relevant for nurses who are working with adult patients with chronic plaque psoriasis in a primary care environment. The focus will be on assessment and treatment for those with mild-to-moderate disease, although reference will be made to the appropriate pathways for those with more severe disease.

Figure 1. *Psoriasis.*

ASSESSMENT

Disease severity and its impact on quality of life are the first stage of assessment. Disease severity tools, such as the Psoriasis Area Severity Index (PASI) are available. However, for these to produce accurate and consistent scores, the person using them must receive training and use them regularly. A more straightforward measure of disease severity is to use the Physician Global Assessment (PGA), which categorises psoriasis as clear, nearly clear, mild, moderate, severe or very severe (Langley and Ellis, 2004).

To get a really good picture of disease severity it is also important to note the involvement of high-impact or difficult-to-treat areas, as these increase disease severity regardless of surface area covered, e.g. the face, genitals, flexures and scalp.

Psoriasis is thought to affect approximately 2% of the UK population and, although it can develop at any age, usually occurs in adults rather than children (NHS Choices, 2014).

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THE SCIENCE — CAUSES

In healthy skin, a cell will travel to the skin's surface every 21–28 days. However, in psoriasis, this process is speeded up, with cells progressing to the epidermis in 2–3 days in some cases (Penzer and Mitchel, 2000). This change is due to T cells (immune cells) being triggered and becoming overactive, as they would if fighting infection or in wound healing. The inflammatory chemicals that they then produce result in an accumulation of skin cells, which appear as raised 'plaques' of skin covered with silver-type scales. Various factors can trigger a flare-up such as stress, anxiety, hormonal changes, or some infections and medications.

✔ Topical treatments — facts...

- ✔ Aim: to lessen the symptoms of dryness and itch as well as clear physical signs of raised, red plaques
- ✔ Topical treatments will not stop new lesions appearing if psoriasis is active
- ✔ Treatments need at least two weeks' use before they will start to take effect
- ✔ Treatments work in different stages:
  - Silvery scale lessens — plaques will look redder
  - Plaques start to flatten — less difference between plaque and normal skin
  - Plaques clear from the centre outwards — ring of psoriasis left to clear
  - Area of cleared skin remains darker in colour for up to two months

To assess how a patient's quality of life is being affected by psoriasis, there are a number of specific dermatology quality of life scores (e.g. Dermatology Life Quality Index). These can be helpful to measure the impact of the condition. However, regardless of whether a formal tool is used or not, clinicians should consider the effect of psoriasis on the individual, e.g. willingness to engage in social activities, and their family. Someone who is experiencing a severe psychological impact may require more intensive interventions than someone who is not that affected, regardless of the level of physical severity.

There is also increasing recognition of the link between severe psoriasis and cardiovascular comorbidities. It may therefore be relevant to offer assessments and health promotion advice around smoking cessation, promoting exercise, preventing obesity, preventing type 2 diabetes and managing alcohol intake. Many of these health-promoting activities will already be happening within primary care, but because of the increased cardiovascular risk they are particularly important for those with more severe psoriasis. The American National Psoriasis Foundation has useful patient-friendly information on psoriasis and comorbidities.

TREATING THE SKIN

Treatment choices for those with psoriasis are broadly divided into topical and systemic. This article will only consider topical therapies, as most systemic regimens are initiated by secondary care.

Before deciding which topical treatments to select, it is important to discuss options with the patient and ensure that they have realistic expectations. Psoriasis is a chronic relapsing condition and therefore a cure cannot be provided. The aims of treatment are two-fold:

- To lessen symptoms, e.g. itch, dryness
- To clear physical signs, e.g. reduce plaque size (see *Topical treatments — facts...* above).

Helping patients to remain adherent to a treatment regimen is a vital role for community nurses. Adherence is likely to be improved if the patient knows why they are using a treatment and how to make best use of it. The way a product is formulated will affect its usability for an individual, and this will depend to an extent on their lifestyle. So, when selecting a product give some thought as to:

- How greasy it is
- Whether it smells or stains
- How frequently it needs to be used
- Where it is to be applied.

Negotiating a treatment plan with a patient should include consideration of how frequently they are able to apply products, whether they work in an environment that requires them to wear smart clothes, and if they can reach the areas they need to treat.

Emollients

The NICE guidance (2012) makes a brief mention of emollient use but not in the pathway — clinicians need to refer to the full document to find this. Emollients are useful for helping to manage symptoms. A best practice guide for emollient therapy suggested that of particular help are those products containing urea, as this can help to penetrate through the thickened skin of a plaque (Penzer, 2012). When selected correctly,

Did you know:

Although unproven, the link between psoriasis and cardiovascular risk is thought to result from systemic inflammation causing insulin resistance, which in turn triggers dysfunction in endothelial cells, leading to atherosclerosis and eventually heart attack or stroke (Boehncke et al, 2011).

Top tip:

Using the 'rule of 9s' is a helpful way to estimate body surface areas affected by psoriasis. This is based on the principle that the palm is equal to approximately 1% of total body surface area. Remember, experience is needed to carry out this technique.

emollients can help to reduce itching and scaling and are useful adjuvants to other active topical therapies, such as vitamin D analogues and topical steroids (*Table 1*).

In terms of quantities to put on at each application, there is no specific quantity stated, however it needs to be sufficient to cover the area and leave a slight sheen (*Figure 2*).

Prescribed topical treatments

In addition to using emollients, other topical therapies such as those listed in *Table 1* should be prescribed to reduce/control active lesions. Vitamin D analogues, often in conjunction with topical steroids, are the first-line of treatment. NICE (2012) lists tar along with potent topical steroids alone as second-line therapy and dithranol as third-line therapy. The authors of this article feel that the combined product of topical calcipotriol and betamethasone together (Dovobet®, Leo) should be offered over the two treatments separately, although this does not comply with NICE guidance. The combined therapy offers a once-a-day treatment, which is cheaper as only one prescription item is needed.

Whichever treatment is selected, careful patient education must be undertaken so that expectations are realistic. Treatments will often show little sign of working until they have been used consistently for 2–4 weeks. This can be very dispiriting for patients, so they will need support.

When plaques start to resolve they will not necessarily reduce in size, but instead clear from the middle outwards leaving a ring of psoriasis with a flat middle. The plaque has cleared completely when the surface is smooth, i.e. there is no bump when running a finger over it. Some post-inflammatory marks, that look almost like a bruise, may be left on the skin even after treatment is successful. These will take a month or so to fade completely. If treatment is continued after the plaque has cleared, the skin is likely to become red and sore.

Table 1: Topical treatments for the body

Step	Application	Side-effects/restrictions*
Vitamin D analogues (e.g. calcipotriol)	Twice a day, unless used with topical steroids, then once a day	› Can sting especially on normal skin (generally avoid face and flexures except calcitriol) › No more than 120g per week › Avoid if patient has compromised calcium levels
Topical steroid (usually potent)	Once a day in conjunction with topical vitamin D analogue	› Possible rebound of the psoriasis on withdrawal
Combined steroid and vitamin D (i.e. Dovobet®, Leo)	Once a day	› Has to be reviewed at four weeks
Dithranol (e.g. Dithrocream™, Dermal) (infrequently used)	Once a day to well-defined plaques only Can be used short contact, applied, left for increasing amounts of time and then washed off	› Time-consuming to apply › Stains skin (and anything else that it comes into contact with) › Makes normal skin sore
Tar (e.g. Exorex®, Forest Laboratories) (infrequently used)	Twice a day	› Distinctive smell › Only weak concentrations available in the community

* Always check current *British National Formulary (BNF)* for specific prescribing instructions

Topical treatments for the scalp

Application of treatments to the scalp is made more difficult due to hair. NICE guidance recommends a four-week course of a potent topical steroid (i.e. Betnovate scalp application) as a first-line treatment. This is effective if there are no thickened plaques. However, if there are thick, scaly plaques, the adherent scale needs to be removed first for subsequent treatments to be effective. A combination ointment containing coconut oil, salicylic acid and coal tar rubbed into the scalp at night and washed off in the morning is, in the authors' clinical experience, the best way to do this. To apply effectively the hair needs to be parted in sections and treatment rubbed into

Figure 2. *Applying emollients to the arm.*

Red Flag **Psychosocial aspects**

The impact that psoriasis can have on patients' wellbeing and mental health should not be underestimated. A survey by the National Psoriasis Foundation (2009) found that more than 50% of people said that the condition affected their wellbeing, and 63% felt self-conscious about it. Links to depression and suicidal ideation have also been found (National Psoriasis Foundation, 2009).

the exposed area. It is always easier if someone else can do this for the person with psoriasis (*Table 2*).

Treating sensitive areas

Treating facial and flexural psoriasis in adults poses different challenges. These areas tend to be more sensitive and therefore the treatments which can be used on the rest of the body are not always suitable. The second challenge for prescribers is that two of the main treatments recommended by NICE for use on these areas, are not licensed for the suggested use.

NICE recommend that first-line treatment should be a moderate potency topical steroid for up to two weeks, however, moderate potency steroids are not licensed for this use. They should not be used for more than one to two weeks in a month and, therefore, if more prolonged use is necessary, topical calcineurin inhibitors (e.g. Elidel® [pimecrolimus], Novartis) can be used on a twice-daily basis. As topical calcineurin inhibitors are not currently licensed for the treatment of psoriasis, NICE apply the caveat that they should only be prescribed by those who have expertise in treating psoriasis.

As a community practitioner, these limitations may mean that these options are not available. A practical approach would be to:

- Ensure that the patient is making optimal use of emollients
- Use one of the vitamin D analogues that can be applied to the face with caution, e.g. Silkis® (calcitriol) (Galderma), Curatoderm® ointment (tacalcitol) (Almirall).

In practice, it is common to see moderate topical steroids (e.g. eumovate®, GlaxoSmithKline) prescribed for facial psoriasis. As flexural psoriasis often has an infective element to it, a moderate potency topical steroid combined with an antifungal/antibacterial is commonly chosen (e.g. Trimovate®, GlaxoSmithKline). As yet, calcineurin inhibitors are rarely prescribed in primary care for psoriasis, however, this is likely to change as practitioners become more experienced with them.

CONCLUSION

The NICE guidance for the treatment of psoriasis provides some much needed advice which is documented in a user-friendly way. It reminds clinicians of the importance of assessment (both physical and psychological), and of helping patients to be adherent to treatment by talking with them about side-effects and mode of action.

Primary care nurses are in a great position to work with patients to ensure that they have the optimum treatment regimen and that they have realistic expectations as to how it will work. An optimum regimen should always include an emollient, a topical product to treat plaques on the body, along with topical treatments for scalp, face and flexures as necessary. **SCT**

Table 2: Topical treatments for the scalp

Step	Rationale and application	Side-effects/restrictions
Coconut oil/salicylic acid/tar (e.g. Sebco®, Derma UK)	Useful on thickened, adherent plaques to loosen and thin out Apply and leave in for a couple of hours or overnight	› Very greasy
Topical steroid	Once plaques are thinned these can be useful to treat plaques further Apply once a day, application technique depends on product	› Should not be used for more than four weeks › Some products may sting on application
Combined vitamin D analogue and betamethasone gel	Once plaques are thinned as above If psoriasis on body as well, same treatment can be used reducing prescription costs	› Review after four weeks
Tar-based shampoo	Use 2–3 times per week during treatment and as maintenance once other treatment stopped	› Distinctive smell

Practice point

If psoriasis is in an active phase, topical treatments will not halt the appearance of new lesions — as old lesions are cleared new ones will appear. Patients also need to know that most treatments take some time to have an effect — usually a minimum of two weeks.

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Care of elderly skin

Age-related skin changes alongside medical conditions increase the prevalence of skin-related problems for the elderly population. Here, *Skin Care Today* outlines four areas of skin care that can help to improve and prevent unnecessary skin injury for this vulnerable population...

1 Skin assessment

Good skin care starts with holistic assessment of the patient. This assessment should include a medical history, pressure ulcer risk assessment, skin examination, nutritional assessment and listening to the patient. The findings of the assessment should be recorded and the information provided used to develop a comprehensive plan of care. For example, the elderly are at risk of malnutrition and dehydration, both of which can have detrimental effects on the condition of the skin. Referral to a dietician may be needed and a fluid balance chart should be put in place.

Assessing pressure ulcer risk will help to inform the plan of care, which should include repositioning and pressure-relieving equipment, while the discovery of a severe pressure ulcer should prompt referral to a member of the tissue viability team.

Skin assessment is not a one-off activity — the plan of care should include frequency of reassessment.

2 Dry, vulnerable skin

With age, the sebaceous glands, which play a role in moisturising the skin, atrophy, resulting in skin that is dry, flaky and itchy. Dry skin conditions can be exacerbated by environmental factors such as dry air from central heating and/or some systemic illnesses such as diabetes and iron deficiency, which should have been identified on initial assessment.

The treatment for dry skin conditions is to hydrate. Emollients (sometimes referred to as moisturisers) are the product of choice. Emollients are used to hydrate all dry, scaling disorders. They are grease-based substances that work by either trapping water in, or drawing water from the dermis into the epidermis. Emollients are available in the form of sprays, lotions, creams, ointments, bath oils and soap substitutes — lotions being the least and ointments the most greasy. Where possible, choice of emollient should be based on patient preference, as the best emollient is the one that the patient will use.

As the effects of emollients are shortlived, they should be applied frequently — at least twice a day and preferably after bathing or showering, while the skin is warm and better able to absorb the emollient. They should be applied liberally (so as to make the skin glisten) in the general direction of hair growth to prevent folliculitis. Use should continue even after the skin's condition has improved.

3 Skin at risk of moisture damage

Incidence of incontinence increases with age. Incontinence changes the pH of the skin from acid to alkaline. The permeability of the skin also increases, resulting in invisible breaches on the skin's surface, which if left untreated can lead to skin conditions such as moisture lesions.

Following an episode of incontinence, the skin should be washed using a non-soap foam cleanser, soft pre-moistened washcloths which are impregnated with dimethicone, or low pH soaps. Once the skin is clean, it should be dried gently using a patting motion, with the clean skin being protected with a barrier product. Barrier products for incontinence are available as creams or films. The general principle is that creams are used for unbroken skin, but films can be used for either broken or intact skin. Always read manufacturers' instructions regarding application and frequency of reapplication. Make sure that the barrier creams selected will not affect the effectiveness of incontinence products. Where there is severe excoriation of the skin, active measures to contain the urine and/or faeces may be required. Remember: incontinence is a symptom and continence assessment and appropriate referral should always be considered as part of incontinence management.

4 Skin tears

With age, there is a thinning of skin with a 20% reduction in the thickness of the dermis, giving skin its paper-thin appearance. There is also a flattening out of the papillae at the dermo-epidermal junction, making the skin vulnerable to skin trauma such as skin tears. Skin tears are traumatic wounds which usually occur on the extremities of elderly individuals and are more common in individuals over the age of 65 years.

Poor management of skin tears can cause pain and discomfort, as well as delayed healing. Preventing skin tears starts with skin assessment and recognition of risk factors, such as thin ecchymotic skin and the implementation of a systematic prevention protocol. This will include keeping the skin well-hydrated, safe manual-handling techniques, maintaining adequate nutrition and hydration of the skin, as well as providing appropriate education for staff, patients and family.

The treatment of skin tears is to control bleeding, clean the wound if appropriate, and approximate the skin flap. An appropriate dressing, for example a silicone dressing, should be used to hold the skin flap in place. If possible, the dressing should stay *in situ* for around five days. If an opaque dressing is used, an arrow should be placed on the dressing to indicate the preferred direction of removal. Adhesive strips are not recommended, and sutures and staples should only be used in full-thickness wounds.

FURTHER READING

The following list provides more in-depth information about caring for the skin of the elderly.

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* Bahr et al. (2011) Clinical efficacy of a new monofilament fibre-containing wound debridement product. Journal of Wound Care, Vol. 20 (5).

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